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IVERSITY OF NEW HAVEN

The Graduate School

1976 — 1977

The University of New Haven does not discriminate on the basis of race, sex, religion, national origin, or handicap in admissions or treatment of students or in recruitment and treatment of employees.

1976-77 Catalog
The Graduate School

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MAIN CAMPUS
300 ORANGE AVENUE
WEST HAVEN, CONNECTICUT 06516
TELEPHONE (203) 934-6321, EXT. 280 OR 207

This catalog supersedes all previous catalogs and brochures published by the Graduate School and describes academic programs to be offered during 1976-77. Graduate students admitted to the University in the fall of 1976 and thereafter are bound by the regulations published in this catalog.

For additional information, write or call

Office of the Graduate School
300 Orange Avenue
West Haven, Connecticut 06516

Telephone (203) 934-6321, Ext. 280 or 207

GRADUATE SCHOOL

Calendar for 1976-1977

July 9, 1976	Friday	Last day to file Financial Aid Application for Fall trimester
September 1-2, 1976 4:30-7:30 p.m.	Wednesday-Thursday	Registration for new students for the Fall trimester
September 7, 1976	Tuesday	Fall trimester classes start
September 20, 1976	Monday	Last day to add a class
September 30, 1976	Thursday	Last day to file Graduation Petition for January Commencement
November 22-27, 1976	Monday-Saturday	Thanksgiving Vacation Week
December 1, 1976	Wednesday	Last day to file Financial Aid Application for Winter trimester
December 1, 1976	Wednesday	Last day to submit application for the Winter trimester
December 7-13, 1976	Tuesday-Monday	Last week of classes
December 15-16, 1976 4:30-7:30 p.m.	Wednesday-Thursday	Registration for new students for the Winter trimester
January 3 1977	Monday	Winter trimester classes start
January 3, 1977	Monday	Last day to submit grades for students expecting to graduate in January Commencement
January 14, 1977	Friday	Last day to add a class
January 23, 1977	Sunday	Commencement
February 21, 1977	Monday	Washington's Birthday — Monday classes will meet Friday, February 25
February 28, 1977	Monday	Last day to file Financial Aid Application for Spring trimester
March 11, 1977	Friday	Last day to submit application for the Spring trimester
March 25, 1977 4:30-7:30 p.m.	Friday	Registration for new students for the Spring trimester
March 28-April 2, 1977	Monday-Saturday	Last week of classes
April 4, 1977	Monday	Spring trimester classes start
April 4, 1977	Monday	Last day to file Graduation Petition for June Comencement
April 8, 1977	Friday	Good Friday — Friday classes will meet Saturday, April 9
April 15, 1977	Friday	Last day to add a class
May 16, 1977	Monday	Last day to submit grades for students expecting to graduate in June Commencement
May 30, 1977	Monday	Memorial Day — Monday classes will meet Friday, June 3
June 5, 1977	Sunday	Commencement
June 27- July 2, 1977	Monday-Saturday	Last week of classes
July 11-Sept. 2, 1977		Summer Independent Study Session

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ADMINISTRATION

Phillip S. Kaplan, Ph.D.
President

Alexis N. Sommers, Ph.D.
Provost

Ned B. Wilson, Ph.D.
Assistant Provost

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Dean of the Graduate School

Henry E. Voegeli, Ph.D.
Associate Dean

Virginia D. Klump
Assistant Registrar

Geraldine K. Dorman
Secretary to the Dean

Marge Manfreda
Recorder

Karen Muller
Admissions Secretary

Doreen P. Griffith
Receptionist

ACCREDITATION

The University of New Haven is fully accredited as a general purpose institution by the New England Association of Schools and Colleges. The Connecticut Commission for Higher Education authorized the University of New Haven to establish a Graduate School and has accredited the degrees of Master of Business Administration, Master of Public Administration, Master of Arts, Master of Science, and Master of Engineering.

Representative memberships in which the University is an active participant include the Council of Graduate Schools, the Association of Independent Colleges, the Assembly of the American Association of Collegiate Schools of Business, the College Entrance Examining Board, the American Society of Engineering Education, the Educational Testing Service, American Council on Education, American Association for Higher Education, Association of Urban Universities, Council for the Advancement of Small Colleges, and the National Commission on Accrediting. The Engineers' Council for Professional Development has accredited the undergraduate mechanical, industrial, civil, and electrical engineering programs.

PROLOGUE

The Graduate School was established in the Fall, 1969. The first graduate degrees were awarded in June, 1971, and marked a new phase in the University's development.

A graduate program involves a commitment, or rather a major responsibility, to provide a graduate faculty and resources capable of providing sound instruction and a dynamic learning experience. The University has made this commitment.

Higher education serves both the individual students and the total society. Universities exist as essential components of modern life. Society is ever changing as it seeks to solve both old and new problems and to create a better life for each of its members.

The role of the University in meeting the needs of a dynamic society is to provide educated men and women trained to meet the manpower requirements of such a society. As part of this leadership, the Graduate School offers a number of graduate programs at several extension centers throughout Connecticut.

It is the policy of the University to train men and women to lead productive lives and fulfill the needs of the urban environment by offering a broad range of flexible programs. In scheduling courses, the Graduate School seeks to accommodate both part-time and full-time students. Graduate courses and certain fields of concentration are also available to qualified men and women who wish to update their previous training or to acquire new professional skills without pursuing a formal degree objective. The Graduate School is therefore open to all.

DEGREE PROGRAMS

The University of New Haven offers graduate programs leading to the degrees of

MASTER OF ARTS

Community Psychology
Organizational/Industrial Psychology

MASTER OF BUSINESS ADMINISTRATION

MASTER OF ENGINEERING

MASTER OF PUBLIC ADMINISTRATION

MASTER OF SCIENCE

Accounting
Computer and Information Science
Criminal Justice
Electrical Engineering
Environmental Engineering
Environmental Sciences
Industrial Engineering
Operations Research
Taxation

GENERAL INFORMATION

The Graduate School operates on a trimester system, offering courses at the West Haven campus and at extension centers in Cromwell, Danbury, Groton, Middlebury and Waterbury. During an academic year, there are three trimesters of 13 weeks each, including the final examination period. Classes meet once each week in the late afternoon and evening. A few classes are scheduled Saturday mornings. The first trimester begins the second week of September and ends the second week of December; the second trimester begins in January and ends the first week of April; the third trimester begins the second week in April and ends the first week of July.

Any student who fails to register for three consecutive trimesters will no longer receive registration materials. It will be the responsibility of the student to notify Graduate Records that he/she wishes to continue his/her graduate studies.

Current students register by mail, and registrations received after the due date will be assessed a late registration fee. Students with an outstanding balance will not be permitted to register.

No registrations or add slips for a course will be accepted after the second week of any trimester. A student may withdraw from a course anytime prior to the last scheduled class meeting. All course additions or withdrawals must be performed in person or by mail.

Students must complete all the requirements for their degree within 5 years of the date of the initial matriculation in the program. Any extension of the time limit can be granted only by the Dean of the Graduate School after consulting with the appropriate program chairman.

The University reserves the right to change class schedules and instructors at any time. It further reserves the right to cancel any course, and in such cases, the students will receive a full refund for the course.

Cancellation of Classes

In the event that it becomes necessary to cancel graduate classes due to inclement weather, radio announcements starting at approximately 1:00 P.M. will be made on the following radio stations: WADS-690-Ansonia, WATR-1320-Waterbury, WWYZ/FM-92.5-Waterbury, WAVZ-1300-New Haven, WCDQ-1220-Hamden, WELI-960-New Haven, WFIF-1500-Milford, WICC- 600 -Bridgeport, WNAB- 1450 -Bridgeport, WINE- 940 -Brookfield, WINE/FM- 95.1 -Brookfield, WKCI/FM- 101.3 -Hamden, WLIS- 1420 -Old Saybrook, WNHC-1340-New Haven, WPLR/FM-99.1-New Haven, WPOP-1410-Hartford, WQQW-1590-Waterbury, WTIC-1080-Hartford, WTIC/FM-96.5-Hartford, WWCO-1240-Waterbury, WNHU/FM-88.7-West Haven, WNLC-1510-New London.

An announcement of the cancellation of undergraduate day classes does not apply to graduate classes unless the announcement states the University has been closed. The cancellation of graduate classes will be announced independently.

Transfer Credit and Waiver of Courses

Credit may be given for graduate courses taken at other accredited institutions subject to the following conditions: a) the courses were at the graduate level; b) each grade was B or better; and c) the courses did not fulfill requirements for any other degree already earned by the student. However, a student must complete a minimum of 30 graduate credit hours in courses given by the University of New Haven.

Certain required courses in each program may be waived on the basis of undergraduate courses taken at other accredited institutions. For a course to be waived, a student must first secure the written approval of the Department Chairman or a faculty member acting for the Department Chairman in the department in which the waiver is requested.

Any waiver decision is usually based upon a student's academic record. The decision to waive a course is also based upon the assumption that the student has a good grasp of the material covered in that course. Therefore, a student may subsequently be required to take a course which had been waived previously.

No course that has been waived can be taken for elective credit.

Requirements for the Thesis & Seminar Project

Students engaged in independent study for the preparation of a thesis or seminar project, select or are assigned, a faculty advisor who acts as the student's research advisor until the thesis or seminar project is completed. No final examination on the thesis/seminar project is required.

Two final copies of the thesis/seminar project must be submitted in proper form to the Dean of the Graduate School 3 weeks prior to commencement. The thesis/seminar project is then deposited permanently in the University Library. The copies should not be bound. Binding will be done by the Library.

Additional copies of a thesis or seminar project are generally required. For this requirement and other regulations regarding the preparation of a thesis or seminar project, students should consult the "Manual for the Preparation of Graduate Theses and Seminar Projects." Copies of the manual are available in the Graduate School Office.

Awarding of Degrees

The University will award degrees twice a year, at commencement in January and in June.

Students completing the requirements for a degree at the end of the fall trimester will receive the degree in January; students completing the requirements for a degree at the end of the winter trimester will receive the degree at the June commencement; and students completing the requirements for a degree at the end of the spring trimester will receive the degree the following January. Students completing the requirements for a degree in July will receive a formal statement that they have completed all requirements for the degree and will formally be awarded their diploma in January.

Candidates for January Commencement must file a petition with the Graduate School no later than September 30, 1976 and for June Commencement no later than April 4, 1977. Forms for this purpose are available in the Graduate School Office. Upon submission of this petition, the Graduate School will review the candidate's record and certify that he/she has met the requirements for the degree. A graduation fee of $30 must accompany the petition. All financial obligations to the university must be met prior to graduation.

Students completing a thesis/seminar project as part of their degree requirement must file a petition in the same manner but must also submit the final manuscript to their thesis/seminar project advisor prior to the end of the tenth week of the trimester in which they expect to complete the requirements for their degree.

Auditor

An auditor is allowed to attend class and is expected to participate in class discussions and complete the required assignments. An auditor receives no grade or credit toward any graduate degree. Auditor status does not imply admission to any of the graduate degree programs. There is a special "Application for Study as an Auditor" form available in the Graduate Office. Auditors are charged the same rate of tuition as a regular student.

Graduate School Ethics

It is Graduate School policy that each student be expected to complete all course requirements on his own initiative and endeavor, with no collaboration unless specifically authorized by an instructor. In addition, material used by a student but authored by another individual, publisher, company, government, or similar organization shall be identified as such by appropriate footnotes or references. Violations of this policy, either in fact or in spirit, will normally be handled by the instructor involved. Students wishing to appeal the decision of an instructor should contact the Graduate School.

Executive MBA Program

The University of New Haven offers an Executive Master of Business Administration. Presented in conjunction with the Greater New Haven Chamber of Commerce, the program is restricted to experienced executives and managers willing to devote one afternoon per week while maintaining their current full-time job responsibilities. Participants who successfully complete the program will be awarded the degree of Executive Master of Business Administration. For more information, contact the Director of the Executive MBA.

ADMISSION

An applicant for admission to the Graduate School must submit:

(a) a formal application;

(b) letters of reference;

(c) complete official transcripts of all previous college work; and

(d) an application fee.

Admission decisions are based primarily on an applicant's undergraduate record. A bachelor's degree from an accredited college is required for admission.

In support of their application, students may submit their scores from either the Admission Test for Graduate Study in Business or the Graduate Record Examination (Aptitude Test and Advanced Test). A student may be required to take one of these tests.

Undergraduate courses required to meet graduate prerequisites may not count toward meeting the requirements for a graduate degree.

Students may be admitted at the start of any trimester. Should a student be unable to start the trimester for which the acceptance is rendered, the admission will be kept open for one calendar year after which time a new application will be required.

Students must register for the first time in person at which time they will have an opportunity to review their undergraduate work with a member of the faculty and plan a program of study. At this time, a student's previous work is reviewed by a member of the faculty who determines what course or courses may be waived, if any. This initial meeting provides an opportunity for the student to discuss with a faculty member his personal goals, academic strengths, and a possible area of concentration. Subsequent registration for each trimester will generally be handled by mail.

Students may request academic counseling at any time. Appointments with members of the graduate staff and faculty should be scheduled through department chairmen or program coordinators.

It is the student's responsibility to select courses in accordance with prerequisites, the advisor's recommendations, the departmental plan of study (if required), and the requirements for the degree.

A student is not required to file a formal plan of study with the Graduate School. It is the student's responsibility to meet the stated requirements for the degree. This policy is consistent with the University's tradition of offering a flexible curriculum to meet the particular needs of an individual.

On occasion, a student who has not had an undergraduate program of study which would qualify the student for admission to the requested graduate program may be required to take undergraduate courses or a combination of undergraduate and graduate courses in order to qualify for admission to the Graduate School.

Special Student Status is reserved for students who do not wish to matriculate in a program. Registration is limited to 12 credit hours of graduate work. Should the student desire to attempt further graduate work, the student must be accepted into a specific graduate program. Special Student Status does not imply that a student will be automatically accepted into a program.

FOREIGN STUDENT ADMISSIONS

An applicant for admission to the Graduate School must submit:

(a) formal application;
(b) three letters of reference;
(c) complete official transcripts of all previous college work;
(d) an application fee of $15;
(e) A TOEFL Score; and
(f) complete Certification of Financial Responsibility forms.

Foreign students must submit their score on the Test of English as a Foreign Language (TOEFL). A student who scores less than 550, if accepted, will be required to take special work in English. These students will be required to satisfactorily complete E600 — The Uses of Language which is offered each trimester by the Graduate School.

Upon acceptance students are invited to contact the Director of Housing for assistance in locating living accommodations.

University resources do not permit the awarding of financial assistance to foreign students. Estimated costs during the 1976-77 Academic Year for students with no dependents are:

Based on 9 Credits — Per Trimester	*Trimester*	*Academic Year*
Base Living Costs	$1,100.00	
Tuition & Fees	606.00	
Books (Approximate)	80.00	
Total	$1,786.00	$5,358.00

Graduate students studying under an F-1 visa are allowed 24 months to complete a degree program. All F-1 visa students must register for a minimum of 9 credit hours each trimester. Once visa students have completed their degree program, the Foreign Student Office will not issue an I-538 for extension of temporary stay, except for periods of practical training approved by the Graduate School.

ACADEMIC STANDARDS

A student must maintain a 3.0 quality point ratio (QPR) for graduation.

The Graduate School has the following grading system: A—superior performance, B—good performance, C—passing performance, and F—failure. The quality points by grade are: A=4, B=3, C=2, and F=0. A grade of F carries no graduate credit and must be repeated. Other grades are P=Pass, though no quality points are earned, the course carries credit hours toward the degree, and S=Satisfactory is used to denote satisfactory performance and U=Unsatisfactory performance in a non-credit course. A grade of W is used when a student withdraws from a course. A student may withdraw from a course at any time, prior to the final examination.

On rare occasions, a student may receive a grade of Inc. (incomplete). It is the responsibility of the student to complete the course as soon as possible. An incomplete grade that is not changed within one calendar year will automatically revert to a W.

A grade of T is only used for thesis/seminar project students who have not finished their thesis during the trimester for which they originally registered for the course. Students must complete their thesis within the maximum allowable time for graduate work.

A student may repeat a course, with the new grade superseding the old grade in the computation of the quality point ratio. However, the original grade remains on the transcript.

PROBATION POLICY

Any graduate student whose cumulative quality point ratio (QPR) is below 3.0 (B average) will be considered to be on academic probation and required to obtain permission from his/her program coordinator before registering for additional course work. A student whose QPR is below 2.7 after completion of twenty-four credits will be dismissed from the Graduate School.

TUITION AND FEES

Non-refundable fees:

application fee	$15.00
registration fee, per trimester	5.00
Graduate Student Council fee, per trimester	1.00
auditor application fee	5.00
late registration fee — current students	10.00
graduation fee	30.00
transcript — first copy free	1.00

Other fees:

tuition per credit hour	65.00
auditor, per credit hour	65.00
computer use fee	10.00
non-credit course, each course	125.00

Tuition for graduate courses is due at registration. However the University permits graduate students to pay their tuition on an installment basis, remitting one-half with the registration form and the balance within thirty days. Master Charge and BankAmericard are accepted by the University for tuition.

Students are responsible for the payment of tuition to the University even though some companies will reimburse employees for tuition. It is the responsibility of students to arrange with their employer for reimbursement.

Grades, transcripts, and registration materials will not be issued to a student whose financial account is delinquent.

To be eligible for a refund, a student must formally notify the Graduate Office of his/her intention to withdraw and complete the withdrawal form either by mail or in person. The date on which the drop slip is submitted to the Graduate School Office (if in person) or the date of the postmark (if by mail) determines the amount of refund, if any, due the student.

The refund policy for graduate students who withdraw from any course or from any program is as follows: 100% refund of tuition upon formal withdrawal prior to the second regularly scheduled class meeting, 75% refund of tuition upon formal withdrawal prior to the third regularly scheduled class meeting, 50% refund of tuition upon formal withdrawal prior to the fourth regularly scheduled class meeting, 25% refund of tuition upon formal withdrawal prior to the fifth regularly scheduled class meeting. No refund will be made after the fifth regularly scheduled class meeting.

STUDENT SERVICES

Athletics

Graduate students are encouraged to make use of the North Campus Athletic Complex. Facilities include three basketball courts, handball-paddleball court, weight room with universal gym, a multi-purpose exercise room, steam room, fully equipped training room, six tennis courts, two softball fields, baseball diamond and combination football-soccer-lacrosse field.

While graduate students are not eligible to participate in the undergraduate intercollegiate athletic program, they are eligible to take an active part in the vast intramural sports program administered by Physical Education Department Chairman, Don Wynschenk. Intramural competition in touch football, badminton, bowling, three and five player basketball, paddleball, softball, tennis, floor hockey and volleyball are sponsored.

A validated UNH ID card is required for entrance to the North Campus gym or tennis courts, during non-class or free time hours. In general, the gymnasium is open for graduate student use at times when regularly scheduled games and classes are not in progress. Students should take care to secure their locker or leave properly identified valuables with the equipment manager while using any facility.

Students who participate in intramurals or use any UNH athletic complex facility, are not covered by the University athletic insurance policy and participate at their own risk. The University recommends that an appropriate insurance policy be carried by each student to cover medical costs in case of injury.

During the school year, the gymnasium is open from 9:00 a.m. to 9:30 p.m. Monday thru Friday with the hours 5:00 p.m. thru 9:30 p.m. generally reserved for undergraduate and graduate student use. The gym is available from 1:00 p.m. to 5:00 p.m. on Saturday. The building is closed Sundays. On Monday evening the main gymnasium is reserved for volleyball.

The tennis courts are open dawn to dusk during clement weather and are supervised during peak hours, limiting use to UNH students and personnel on a one hour time limit basis.

The paddleball court must be reserved a day in advance by calling 934-6320 prior to 8:30 a.m. and 934-6321, Ext. 255 between 8:30 a.m. and 5:00 p.m.

It is hoped that graduate students will avail themselves of a full range of activities and that they will seek out Athletic Department and Physical Education Department staff members to express interests in areas where further graduate student participation can be encouraged.

Library

The new Marvin K. Peterson Library, named for President Emeritus Peterson, was dedicated October 20, 1974. Built at a cost of $1,664,280, the new library has a capacity of 300,000 bound volumes. It adjoins the main administration building and includes a rare book room, a special collection room, a music room, archives and spacious reading and reference areas. Study is made convenient by modern research facilities and equipment, including eight microreading stations and three microform reader-printers.

The Library contains more than 90,000 volumes, 50,000 U.S. documents, over 6,500 LP's, extensive corporation annual reports, pamphlet files, and microfilm. The Library subscribes to 975 periodicals and extensive back-issue files are maintained.

In order to check out books from the library, a student must have a validated identification card which is issued at registration.

Computer Center

A modern, well equipped computer center is maintained to serve the academic and administrative needs of the University. The computer center acquired a new Meta-4 system produced by Digital Scientific of California. This system includes 6 disk drives (20 million characters per pack), 2 mag tape drives, two 600 cpm card readers, two 600 lpm printers, 1 card punch, a graph plotter, remote terminals and other peripheral equipment. The Meta-4 system permits use of all major business and technical programming languages.

The University also owns a Burroughs System 300 computer donated by the First New Haven National Bank. The computer center and key punch area are available to students during extended hours on weekdays and Saturdays.

Foreign Students

The Graduate School accepts foreign students from a number of different countries. The Foreign Student Advisor offers special guidance and assistance when needed. The International Students Club on campus sponsors activities and trips. The International Student Center of New Haven (near the Yale campus) invites all foreign students to use their facilities and programs throughout the year.

Veterans Affairs

Since the University has one of the largest veteran enrollments in Connecticut, an Office of Veterans Affairs, with a full-time Coordinator and secretary, is maintained. The Veterans Administration has assigned to the University a full-time V.A. representative who maintains liaison directly with state and national V.A. offices. In addition to processing applications for various V.A. benefits, the campus Veterans office provides a wide range of supportive services for veterans attending the University. Assistance is available in academic areas and special help such as tutorial assistance is available.

Women's Affairs

The Office of the Director of Women's Affairs is located in the Main Building. Activities of special interest to women are coordinated through the Director, who meets regularly with women students. Personal counseling is available at any time.

Women's Studies programs are developed by a group of faculty, staff and students dedicated to the promotion of women's issues at the University.

Career Development Office

This office has two primary functions within the University: career counseling and placement. The staff works closely with the Counseling Center to help determine an appropriate career path for individual students. To assist students in a career choice, individual counseling, a career library and career seminars are available. In addition, a program of on-campus recruiting visits by employers is arranged each year for the benefit of University of New Haven students, both undergraduate and graduate.

While the Career Development Office is not an employment service, listings of full-time and part-time openings are maintained to provide a common meeting ground for employers and prospective employees.

Students seeking employment should visit the office personally as early as possible to discuss their plans. Alumni seeking positions are invited to use the services of the office.

Employers wishing to list positions with the Career Development Office need only call the office or write, giving a description of the position available and other details. There is never any fee charged for listing a position.

Graduate Student Council

The Graduate Student Council is a forum where graduate students can provide a viable input to the administration in order to improve all aspects of graduate education at the University. The Council schedules a number of extracurricular activities and all graduate students are encouraged to attend.

Radio Station

WNHU, 88.7 MHZ, is the University's student-operated FM radio station. The 1,700 watt station serves a potential listening audience of over 2,000,000 people in Connecticut and Long Island.

WNHU is an extra-curricular activity, funded by the Day Student Government, and staffed by students from all sections of the University community.

The Student Center

The Student Center provides a focal point for all student activities. Offering lounges, student offices, a game room, a large cafeteria and a snack bar, the facility has been designed to serve as a center for the student's non-academic college interests.

The Rathskellar, also located in the Student Center, opens daily, serving draft beer and snacks.

Bookstore

The University bookstore offers new and used text materials, art and engineering supplies, and a large variety of University emblemed gift items.

Financial Aid

Financial aid is available to graduate students in the form of scholarships, grants, loans, bursary work, work-study programs, teaching assistantships, and research assistantships.

The University provides full tuition scholarships to outstanding candidates, based upon academic achievement, financial need, and potential contribution in the field of study. Partial tuition grants are also available for those students needing help to pursue their degree on a part-time basis.

Part-time employment is available as departmental assistants within the University. Selected students may work a maximum of twenty hours a week, with the work schedule and maximum earnings determined by the requirements of the department involved.

The College Work-Study Program is designed to enable students with financial need to work on-campus and off-campus with several non-profit community organizations. Typically, such jobs average fifteen hours a week.

Interested students should apply at the Financial Aid Office.

Opportunities are available for academically qualified graduate students to teach undergraduate courses. Selection is made by the appropriate department and compensation is at the prevailing rate for adjunct faculty.

The State of Connecticut and other states have established loan programs offering long term loans at low interest rates. In Connecticut, a student may borrow up to a maximum of $2500 each school year. Repayment starts one year after graduation. If the family's income (adjusted) is under $15,000 annually, federal interest benefits cover the full interest while in attendance and during the grace period.

Foreign students are not normally eligible for financial assistance as they must certify availability of sufficient funds at time of entry.

All financial aid applications must be submitted four weeks prior to the beginning of the trimester for which the student is seeking financial aid and must be accompanied by a copy of the student's most recent Federal Tax return, Form 1040. GAPSFAS (Graduate and Professional School Financial Aid Service) applications are accepted for aid consideration.

A student on academic probation is not eligible for financial aid.

The Law Enforcement Assistance Programs (LEEP)

Loans. The Omnibus Crime Control and Safe Streets Act of 1968 established the Law Enforcement Student Loan Program which makes available ten year, interest bearing (7%) notes of up to $2,200 per academic year to full-time students enrolled in undergraduate and graduate programs leading to degrees in areas directly related to law enforcement. These loans can be cancelled at the rate of 25% for each year of employment in a public, state, local, or federal law enforcement agency.

Grants. Grants are available to full-time employees of a publicly funded law enforcement agency under the Law Enforcement Student Grant Program. Payments up to $250 per trimester are provided to full-time or part-time students working toward a degree in this field. A recipient must agree to remain with a law enforcement agency for two years after completion of studies funded by this grant.

Awards under the LEEP Program are subject to current guidelines of the Department of Justice and the availability of funds.

Full information and applications for financial aid can be obtained from the Financial Aid Office.

MASTER OF ARTS DEGREE IN COMMUNITY PSYCHOLOGY

The general purpose of the Master of Arts program in Community Psychology is to provide training at the graduate level for careers in human services delivery systems utilized in community mental health centers and community action programs. Specifically, the program strives to:

1. develop and enlarge the student's appreciation of the complexities, interrelationships and problems that characterize the community;
2. prepare students to utilize psychological backgrounds to solve contemporary community problems;
3. foster development of problem-solving strategies which enhance mental health, educational and personality development; and
4. train students in performance characteristics as members of research teams, therapeutic teams, and public information teams working under professional guidance.

A collateral objective is to provide graduate training in the late afternoon and early evening for the convenience of men and women who are employed on a full-time basis.

Admission Policy

Applicants are expected to possess social and interpersonal characteristics which will support success in human service occupations.

Students who give evidence of sustained interest in community and human service and who hold an undergraduate degree from an accredited college or university are eligible for admission.

Applicants are required to complete a questionnaire to be submitted directly to the Graduate School and may be required to submit scores from either the Miller Analogies Test or the Graduate Record Examination Aptitude Test. An undergraduate major in psychology is not specifically required as a basis for consideration. However, all students are expected to have at least an introductory level understanding of psychological concepts, principles, and methods before taking courses in the Master of Arts in Community Psychology program.

Requirements for the Degree of Master of Arts in Community Psychology

A total of 39 credit hours is required for the Master of Arts in Community Psychology degree. Candidates for this degree will be required to complete 21 credit hours of core curriculum courses, including three trimesters of field experience and practicum.

Eighteen of the 39 credit hours are electives chosen after consultation with a departmental advisor to help pursue individual academic and professional goals. The organization of the Master of Arts in Community Psychology program is such that elective courses constitute a very small part of the first year's work but become the major constituents of the second year.

Each candidate must complete a minimum of thirty credit hours in residence at the University of New Haven.

Though academic credit may be accepted as the basis for a course waiver, i.e. graduate transfer credit, field experience may not be used as the basis for a course waiver.

Thesis

Students electing to write a thesis must register for P 698 Thesis I and P 699 Thesis II. The thesis must show ability to organize materials in a clear and original manner and present well-reasoned conclusions.

The thesis is written under the direction of the faculty member in charge of the thesis seminar or a faculty member with special competence in the subject matter of the thesis. The complete and final manuscript must be submitted to the thesis advisor prior to the end of the tenth week of the trimester in which the candidate expects to complete the requirements for his degree. The final approved copies of the thesis must also be submitted to the Dean of the Graduate School 3 weeks prior to commencement. No final examination on the thesis is required.

Two copies of the thesis are deposited permanently in the Library. Additional copies of the thesis are usually required. For this requirement and other regulations regarding the preparation of a thesis, students should consult the "Manual for the Preparation of Graduate Theses and Seminar Projects." Copies of the manual are available in the Graduate School Office.

Field Experience & Practicum Seminar

The field-study courses will be integrated with the instructional courses of the program. While the field-study courses are shaped by the agency program in which they occur, the student simultaneously carries on a rich program of reading. For each field-study trimester, the student will be required to prepare a plan of experience under the guidance of his advisor. At the end of each trimester the student will submit a report on his experience, skill development, and insights.

A salient characteristic of the Field Experience & Practicum Seminar sequence involves the role of the field experience coordinator who works with the student both at the site of the field experience and in the practicum seminar.

PROGRAM OF STUDY FOR THE MASTER OF ARTS IN COMMUNITY PSYCHOLOGY

Required Courses

Course Number and Title			*Credit*
P	605	Survey of Community Psychology	3
P	607	Special Problems in Community Psychology	3
P	609	Research Methods	3
P	611	Field Experience & Practicum Seminar I: The Dyadic Relationship	3
P	612	Field Experience & Practicum Seminar II: Models of Consultation	3
P	613	Field Experience & Practicum Seminar III: Systems Intervention	3
P	680	Community Mental Health Philosophy & Concepts	3
		Electives*	18
			39

*To be selected after consultation with a departmental advisor.

MASTER OF ARTS IN ORGANIZATIONAL/INDUSTRIAL PSYCHOLOGY

The Master of Arts Program in Organizational/Industrial Psychology is designed as an interdisciplinary program leading to the development of expertise in the application of Psychology for men and women involved in supervisory roles and for those planning such professional careers. The program emphasizes both the principles and procedures of psychology and the perspectives of other disciplines in preparing the student to meet organizational problems in their full complexity. Approximately two dozen top industrialists have agreed to assist the department in the continuing development of the problem.

The program further strives to:

1. familiarize the student with contemporary research and publications concerned with mutual relationships between organizational characteristics and the employee's behavior;
2. provide the student with an improved understanding of psychological findings relating to personnel counseling, test administration and interpretation for selection, transfer, and promotion as well as management development;
3. enhance the student's knowledge of current psychological information and skills relating to human-need satisfaction, executive training, organizational climate, problem solving and decision making, effective organizational change, and the study of organizationally-induced stress;
4. familiarize the student with current psychological theory and findings relating to attitude measurement, personnel policy evaluation and development, and management development programs;
5. meet the increasing needs of organizations for individuals with specialized research and human relations skills; and
6. provide graduate study on a late afternoon and early evening basis for the full-time employee.

Admission Policy

Applicants are expected to possess social and interpersonal characteristics which will support success in organizational settings.

Students who give evidence of a mature interest in the application of psychological principles to organizational problems and who hold an undergraduate degree from an accredited college or university are eligible for admission.

Applicants are required to complete a questionnaire and submit it directly to the Graduate School and may be required to submit scores from either the Miller Analogies Test or the Graduate Record Examination Aptitude Test. An undergraduate major in psychology is not specifically required as a basis for consideration. However, all students are expected to have at least an introductory level understanding of psychological concepts, principles, and methods before taking courses in the Master of Arts in Organizational/Industrial Psychology program.

Requirements for the Master of Arts in Organizational/Industrial Psychology Degree

A total of 39 credit hours is required of candidates for the degree of Master of Arts in Organizational/Industrial Psychology. Candidates for this degree will be required to complete 18 credit hours of required courses in the core curriculum. Another 21 credit hours of electives will be chosen after consultation with the department chairman or his representative in light of the student's academic and professional goals. The student may not complete more than 9 credit hours of electives until he/she has satisfied the core requirements. Up to 9 credit hours of electives may be taken in other departments, such as Industrial Engineering, Economics, Management, Marketing, Public Administration or Criminal Justice.

Academic credit may be given for graduate courses taken at other accredited institutions. However, each candidate must complete a minimum of 30 credit hours in residence at the University of New Haven in order to qualify for the degree.

Program Options

In response to the different needs and levels of preparation of students in the program, the four following options are available:

Option 1 is recommended for an individual currently employed in a managerial or supervisory position. The practicum seminars will allow the student to investigate a specific job-related problem under expert faculty supervision.

Option 2 affords the student with limited work experience an opportunity to serve an industrial internship, providing the student the chance to observe real organizational/industrial situations to be analyzed and discussed with a faculty supervisor.

Option 3 will provide the student planning to pursue doctoral studies with an essential tool — the ability to do empirical research and report writing through the preparation of a Thesis.

Option 4 consists of elective courses selected under faculty advisement. The choice of electives is intended to provide the student with a broad interdisciplinary background, complementing the student's own academic training and interests.

Normally the student should not begin work on any of the first three options until he/she has completed at least four more core courses.

PROGRAM OF STUDY FOR THE MASTER OF ARTS IN ORGANIZATIONAL/INDUSTRIAL PSYCHOLOGY DEGREE

Required Courses

Course Number and Title			*Credit*
EC	625	Industrial Relations	3
P	606	Seminar in Organizational/Industrial Psychology	3
P	609	Research Methods	3
P	619	Organizational Behavior	3
P	635	Assessment of Human Performance with Standardized Tests	3
P	640	Industrial Motivation & Morale	3
		Electives*	21
			39

Elective Options

Option 1

P	691	Practicum I	3
P	692	Practicum II	3
		Electives*	15

Option 2

P	693	Organizational Internship I	3
P	694	Organizational Internship II	3
		Electives*	15

Option 3

P	698	Thesis I	3
P	699	Thesis II	3
		Electives*	15

Option 4

		Electives*	21

*The choice of electives is made in consultation with a departmental graduate advisor in light of the student's academic and professional goals.

MASTER OF PUBLIC ADMINISTRATION

The general purpose of the Master of Public Administration degree at the University of New Haven is the training of men and women at the graduate level for public service careers. Specifically, the program strives to:

1. equip students with the modern analytical and quantitative tools of decision-making and their application to the complex problems of government;

2. expose the students to the wide range of administrative and managerial problems and responsibilities of government; and

3. increase the student's knowledge and skills in the particular management functions of budgeting, planning, public policy formulation, public finance, and public personnel administration.

Requirements for the Master of Public Administration Degree

A maximum of 45 credit hours is required of candidates for this degree.

A maximum of 9 credit hours of required courses in the MPA program may be waived on the basis of undergraduate courses and/or appropriate work experience. For a course to be waived, a student must first secure the written approval of the department chairman or a faculty member acting for the chairman of the public administration department.

Each candidate must complete a minimum of 30 graduate credit hours in residence at the University of New Haven in order to qualify for the Master of Public Administration degree.

Undergraduate courses may not be counted in meeting the minimum 36 credits required for the Master of Public Administration degree.

Students in this program should be familiar with the use of computers. The use of a computer is required in a number of courses in the program. Students deficient in this area should register for IE 603C, Introduction to Digital Computers: COBOL or IE 603F, Introduction to Digital Computers: FORTRAN, as an elective early in their program of study. However, a student will only be granted graduate credit for either IE 603C or IE 603F, not both.

Of the 15 credit hours of electives in the MPA program, 6 credit hours may be taken in graduate courses offered in other programs such as Psychology, Criminal Justice, Economics, and Industrial Engineering.

PROGRAM OF STUDY FOR THE MASTER OF PUBLIC ADMINISTRATION DEGREE

Required Courses

Course Number and Title		*Credit*
PA 601	Principles of Public Administration	3
PA 602	Public Policy Formulation and Implementation	3
EC 608	Economics for Public Administrators	3
PA 611	Research Methods in Public Administration	3
PA 625	Administrative Behavior	3
PA 620	Personnel Administration and Collective Bargaining in the Public Sector	3
PA 632	Public Finance and Budgeting	3
PA 604	Seminar in Communities and Social Change	3
PA 690	Research Project	3
PA 693	Public Administration Internship	3
	Electives	15
		45

MASTER OF BUSINESS ADMINISTRATION

The general purpose of the MBA program at the University of New Haven is the education of men and women at the graduate level for careers in business administration as well as other job areas requiring a sound grasp of business principles. The overall objective of the program is to enhance the student's perspective of managerial skills. The program has been designed to develop a professional point of view in managing an organization. It further develops the student's ability to utilize the newest analytical and quantitative techniques used in corporate decision making. The student is also exposed to an in depth analysis of various theories of business and managerial behavior, emphasizing the business organization in relation to its internal and external environment. Another important objective of the program is to afford the student an opportunity to develop special skills by concentrating in a given study area.

Requirements for the MBA Degree

A maximum of 45 credit hours with a thesis is required of candidates for the MBA degree. If maximum waiver credit is granted, a student must complete a minimum of 30 credit hours for the MBA degree. The residence requirement is also 30 graduate credit hours. Undergraduate courses may not be counted in meeting the minimum 30 credits required for the MBA degree.

Candidates for the MBA degree are urged to write a thesis as part of the requirement for the degree. A thesis student has the opportunity to work with a faculty member on a mutually determined research project. Candidates who elect not to write a thesis must take two additional business courses in place of Thesis.

Students in the MBA program should be familiar with the use of computers in solving problems. The use of a computer is required in a number of courses in the MBA program. Students deficient in this area should register for IE 603C Introduction to Digital Computers: COBOL. Students wishing to learn FORTRAN should register for IE 603F. However, a student will only be granted graduate credit for either IE 603C or IE 603F, not both.

A student must complete the basic core before taking advanced courses in the MBA program. The basic core consists of EC 603, EC 604, QA 604, and QA 605.

Waiver Policy

Required courses in the MBA program may be waived on the basis of undergraduate courses taken at accredited institutions. For a course to be waived, a student must first secure the written approval of the department chairman or a faculty member acting for the chairman of the department in which the course if offered.

A course that has been waived cannot be taken for elective credit.

Thesis

Students electing to write a thesis must register for thesis in the appropriate business department. The thesis must show ability to organize material in a clear and original manner and present well-reasoned conclusions.

The thesis is written under the direction of the faculty member in charge of the departmental thesis program or a faculty member with special competence in the subject matter covered by the thesis. The complete and final manuscript must be submitted to the thesis advisor prior to the end of the tenth week of the trimester in which the student expects to complete the requirements for his degree. The two final approved copies must also be submitted to the Dean of the Graduate School 3 weeks prior to Commencement. No final examination on the thesis is required.

The thesis is deposited permanently in the Library. Students are required to submit two copies of the thesis for the Library. Additional copies of the thesis are usually required. For this requirement and other regulations regarding the preparation of a thesis, students should consult the "Manual for the Preparation of Graduate Theses and Seminar Projects." Copies of the manual are available in the Graduate School Office.

PROGRAM OF STUDY FOR THE MASTER OF BUSINESS ADMINISTRATION DEGREE

Required Courses

Course Number and Title		*Credit*
EC 603	Microeconomic Analysis	3
EC 604	Macroeconomic Analysis	3
QA 604	Probability and Statistics	3
QA 605	Advanced Statistics	3
MK 609	Marketing	3
FI 615	Finance	3
MG 637	Management	3
P 619	Organizational Behavior	3
A 621	Managerial Accounting	3
EC 625	Industrial Relations	3
	Thesis*	3
	Electives	12
		45

*Candidates who elect not to write a thesis must take two additional business courses in place of Thesis.

MASTER OF BUSINESS ADMINISTRATION CONCENTRATIONS

Within the Master of Business Administration Program, the student is allowed to concentrate in a specific study area. There are several structured concentrations offered by various departments. A concentration consists of four courses taken in one area.

Accounting

A	630	Advanced Corporate Tax Planning I
A	631	Advanced Corporate Tax Planning II
A	640	Advanced Problems in Budgeting
A	650	Advanced Accounting Theory

Computer and Information Science

IE	603	Introduction to Digital Computers
IE	605	Common Programming Languages I, *or*
IE	606	Computer Programming Languages II
IE	610	Computer Systems Design
IE	614	Data Information Systems

Finance

FI	651	Portfolio Management and Capital Market Analysis
FI	645	Corporate Financial Theory
FI	617	Financial Institutions and Capital Markets
FI	649	Security Analysis, *or*
FI	655	Commodity Market Analysis, *or*
FI	661	Real Estate: Principles and Practices, *or*
FI	619	Monetary and Central Banking Policy

Hotel Management

HM	610	Seminar in Hotel Management Theory
HM	620	Financial Management
HM	630	Personnel Relations Management *or*
HM	640	Executive Cuisine Development *or*
HM	690	Research Project

International Business

IB	643	International Business Operations, *or*
MG	660	Comparative Management, *or*
IB	651	Comparative Marketing, *or*
IB	652	Multinational Business Operations, *or*
IB	644	Import and Export Business, *or*
EC	641	International Economics

Management and Organization

MG 662	Organization Theory
MG 664	Organizational Effectiveness
MG 669	Business Policy and Strategy
MG 663	Leadership in Organizations, *or*
MG 661	Development of Management Thought, *or*
MG 660	Comparative Management

Marketing

MK 639	Marketing Research
MK 641	Marketing Management
MK 643	Product Management
	One other course in Marketing

Operations Research

IE 607	Probability Theory
IE 621	Linear Programming
IE 622	Queuing Theory
IE 686	Inventory Analysis

Economic Forecasting

QA 607	Forecasting
EC 653	Econometrics
IE 603F	Introduction to Digital Computers: FORTRAN
MG 633	Managerial Economics, *or*
IE 606	Advanced Technical Programming, *or*
EC 665	Urban & Regional Economic Development, *or*
EC 690	Research Project, *or*
MK 639	Marketing Research & Information Systems

Management Science

IE 601	Introduction to Operations Research/Management Science
IE 604	Management Systems
QA 606	Advanced Management Science
QA 607	Forecasting

MASTER OF BUSINESS ADMINISTRATION PROGRAM OPTIONS

There are two graduate business programs that require extensive undergraduate training. They are accounting and hotel management. The Master of Business Administration degree program with the appropriate option allows the graduate student to complete the required undergraduate core in either discipline while satisfying the requirements for the MBA. For example, a student selecting the MBA with Hotel Management Option will be required to take a maximum of 36 graduate credit hours or a minimum of 30 graduate credit hours. Anyone who holds an undergraduate degree in Hotel Management may not take this program. In addition, the student must also complete 30-36 credit hours of undergraduate Hotel Management courses. Similarly, the MBA with Accounting Option calls for a maximum of 36 graduate credit hours or a minimum of 30 graduate credit hours in addition to 30-36 hours of undergraduate accounting from either the financial accounting concentration or the managerial accounting concentration. Anyone who holds an undergraduate degree in Accounting may not take this program.

Thesis

Students electing to write a thesis must register for thesis in the appropriate business department. The thesis must show ability to organize material in a clear and original manner and present well-reasoned conclusions.

The thesis is written under the direction of the faculty member in charge of the departmental thesis program or a faculty member with special competence in the subject matter covered by the thesis. The complete and final manuscript must be submitted to the thesis advisor prior to the end of the tenth week of the trimester in which the student expects to complete the requirements for his degree. The two final approved copies must also be submitted to the Dean of the Graduate School 3 weeks prior to Commencement. No final examination on the thesis is required.

The thesis is deposited permanently in the Library. Students are required to submit two copies of the thesis for the Library. Additional copies of the thesis are usually required. For this requirement and other regulations regarding the preparation of a thesis, students should consult the "Manual for the Preparation of Graduate Theses and Seminar Projects." Copies of the manual are available in the Graduate School Office.

PROGRAM OF STUDY FOR THE MASTER OF BUSINESS ADMINISTRATION DEGREE WITH HOTEL MANAGEMENT OPTION

Required Courses

Course Number	*Title*	*Credit*
EC 603	Microeconomic Analysis	3
EC 604	Macroeconomic Analysis	3
QA 604	Probability and Statistics	3
MK 609	Marketing	3
FI 615	Finance	3
MG 637	Management	3
P 619	Organizational Behavior	3
A 621	Managerial Accounting	3
EC 625	Industrial Relations	3
HM 698	Thesis*	3
	Electives	6
		36

*Candidates who elect not to write a thesis must take two additional business courses in place of Thesis.

Required Undergraduate Courses

Course Number	*Title*	*Credit*
HM 101	Laws of Inn-Keeping	3
HM 103	Principles of Hotel Management	3
HM 150	Management Decision Making	3
HM 165	Tourism	3
HM 201	Front Office Administration	3
HM 302	Purchasing & Control	3
HM 321	Principles of Hotel and Restaurant Administration	3
HM 322	Mkts. & Promotion of Public Services	3
HM 325	Food & Beverage Control	3
HM 410	Hotel Systems & Operations	3
HM 411	Equip. Layout & Design	3
HM 512	Seminar	3
		36

PROGRAM OF STUDY FOR THE MASTER OF BUSINESS ADMINISTRATION DEGREE WITH ACCOUNTING OPTION

Required Courses

Course Number and Title			*Credit*
EC	603	Microeconomic Analysis	3
EC	604	Macroeconomic Analysis	3
QA	604	Probability & Statistics	3
QA	605	Advanced Statistics	3
MK	609	Marketing	3
FI	615	Finance	3
MG	637	Management	3
P	619	Organizational Behavior	3
A	621	Managerial Accounting	3
A	698	Thesis*	3
		Electives**	6
			36

*Candidates who elect not to write a thesis must take two additional business courses in place of Thesis.

**LA 673 Business Law I and LA 674 Business Law II are recommended.

Required Undergraduate Courses

Financial Accounting Concentration

Course Number and Title			*Credit*
A	111	Introductory Accounting I	3
A	112	Introductory Accounting II	3
A	221	Intermediate Accounting I	3
A	222	Intermediate Accounting II	3
A	223	Cost Accounting I	3
A	224	Cost Accounting II	3
A	331	Advanced Accounting I	3
A	332	Advanced Accounting II	3
A	333	Auditing I	3
A	334	Auditing II	3
A	335	Income Tax Procedures I	3
A	336	Income Tax Procedures II	3
			36

Managerial Accounting Concentration

Course Number and Title			*Credit*
A	111	Introductory Accounting I	3
A	112	Introductory Accounting II	3
A	221	Intermediate Accounting I	3
A	222	Intermediate Accounting II	3
A	223	Cost Accounting I	3
A	224	Cost Accounting II	3
A	331	Advanced Accounting I	3
A	333	Auditing I	3
A	335	Income Tax Procedures I	3
A	336	Income Tax Procedures II	3
A	339	Managerial Accounting	3
A	341	Financial Decision Making	3
			36

MASTER OF SCIENCE IN ACCOUNTING

The overall objective of the Master of Science in Accounting program is to provide a framework for accounting inquiry, devised in structure and content from the entire scope and process of accounting-information-based economic decision-making. The existence of such a framework is intended to provide for graduate accountants and professional practitioners an opportunity to share in the development and assessment of issues of accounting interest within a decision-making context. Accordingly, the M.S. program is structured to receive its objective and direction from the overall objective of accounting — providing information useful to the process of economic decision-making.

To accomplish this objective, the M.S. program offers a structure of studies designed to provide:

1. an examination of the foundations of economic decision-making. (Foundation Courses, 18 credits);
2. an analysis of the role and usefulness of accounting information for economic decision-making. (Core Courses, 12 credits); and
3. an opportunity for further selected specialization from the generally recognized branches or divisions of accounting inquiry. (Electives, 9 credits)

Each student, upon entering the program, will be assigned a faculty advisor who will assist the student throughout his program of studies, particularly with the selection of suitable electives. The assigned faculty advisor will also act as, or assist in the selection of, the students' thesis advisor.

Degree Requirements

A minimum total of thirty-nine (39) credits will be required for completion to earn the Master of Science in accounting. The transfer of credit earned at other institutions will be permitted, subject to each of the following conditions:

a. the courses were at the graduate level;

b. each grade earned was "B", or better; and

c. the courses did not fulfill requirements for any other degree already earned by the student

A minimum of thirty (30) credit hours must be completed at the University of New Haven prior to the granting of the degree. All credits offered toward the Master of Science in accounting must be earned within a continuous time span of five calendar years.

Admission Policy

Admission to the program is open to persons holding an undergraduate degree from an accredited institution, preferably, but not exclusively, in Accounting or in Business Administration with a major in Accounting. Persons holding other than the above degrees will be required to take a number of selected undergraduate courses. Admission is based primarily on an applicant's undergraduate record; however, the promise of academic success is the essential factor for admission. In support of their application, persons may submit their scores from the Admission Test for Graduate Study in Business. An applicant may be required to take this test.

Thesis

All students are required to write a thesis. The thesis must show ability to organize material in a clear and original manner and present well-reasoned conclusions.

The complete and final manuscript must be submitted to the thesis advisor prior to the end of the tenth week of the trimester in which the candidate expects to complete the requirements for his degree. The final approved copies of the thesis must also be submitted to the Dean of the Graduate School 3 weeks prior to commencement.

The thesis is deposited permanently in the Library. Students are required to submit two copies of the thesis for the Library. Additional copies of the thesis are usually required. For this requirement and other regulations regarding the preparation of a thesis, students should consult the "Manual for the Preparation of Graduate Theses and Seminar Projects." Copies of the manual are available in the Graduate School Office.

PROGRAM OF STUDY FOR THE MASTER OF SCIENCE ACCOUNTING

Required Courses

Course Number and Title		*Credit*
Foundation Courses		
EC 604	Macroeconomic Analysis	3
EC 603	Microeconomic Analysis	3
FI 651	Portfolio Management and Capital Market Analysis	3
FI 615	Finance	3
MG 637	Management	3
QA 604	Probability and Statistics	3
		18

Core Courses

A	650	Advanced Accounting Theory	3
A	621	Managerial Accounting	3
A	654	Financial Statements: Reporting and Analysis	3
A	698	Thesis	3
			12
		Electives	9
		Total	39

Elective Courses

Financial Accounting Specialization

A	651	Financial Accounting Seminar
A	652	Advanced Auditing
A	653	Accounting for the Not-for-Profit Organizations
A	656	International Accounting
FI	649	Security Analysis

Managerial Accounting Specialization

A	661	Managerial Accounting Seminar
A	640	Advanced Problems in Budgeting
A	641	Accounting Information Systems
A	642	Operational Auditing
FI	645	Corporate Financial Theory

Taxation Specialization

A	604	Corporate Income Taxation I
A	605	Corporate Income Taxation II
Two		Taxation Electives

MASTER OF SCIENCE IN TAXATION

Society's decision to pursue collectively, through the instrument of governmental policy, a variety of economic and social goals has led to the development of a complex body of "tax law". Given the dynamic state of society's economic and social goals, and the alternative means for their accomplishment, the body of "tax law" characteristically exists in a continual state of change.

The complex and dynamic structure of "tax law" is significant not only because of its impact upon the process of accomplishing society's goals but also because of its influence upon the economic decision-making process in which society's members are constantly engaged. The tax consequences at the applicable governmental level — federal, state, and local — of economic decisions made by society's members have been and will continue to be an increasingly important consideration.

Program Objectives

In recognition of the above, a need to prepare technically competent individuals for careers in the field of taxation has developed. Owing to the complex and dynamic nature of "tax law", it appears appropriate to conduct this preparation at an advanced level of inquiry with an emphasis upon examining issues of current interest in taxation. Accordingly, the Master of Science Program in Taxation has been designed as a framework to accomplish the following structure of objectives:

1) To apprise the students of the role of "tax law" relative to social and economic policy.
2) To prepare students with approaches relative to the integration of "tax law" with the economic decision-making process.
3) To prepare students for technical competence relative to understanding and interpreting "tax law".
4) To prepare students with approaches to independent research in taxation.
5) To familiarize students with Internal Revenue procedures.

Given the above objectives, the Master of Science Program in Taxation provides a framework through which advanced and timely tax training can be acquired by experienced professionals (accountants and attorneys) practicing in the field of taxation, as well as individuals seeking to prepare themselves for entry into career positions in taxation.

Degree Requirements

A minimum total of 36 credits is required for the Master of Science in Taxation. The 36 credits will include 24 credits from required core courses and 12 credits from electives. The transfer of credit earned at other institutions will be permitted, subject to each of the following conditions:

a) the courses were at the graduate level
b) each grade earned was "B", or better
c) the courses did not fulfill requirements for any other degree already earned by the student.

A minimum of thirty (30) graduate level trimester credits must be completed at the University of New Haven prior to the granting of the degree. All credits offered toward the Master of Science in Taxation must be earned within a time span of five (5) calendar years, start to finish.

Admission Policy

Admission to matriculation in the program is available to CPA's, attorneys, and persons holding an undergraduate degree from an accredited institution, preferably, but not exclusively, in Accounting or in Business Administration with a major in Accounting. Persons holding other than the above degrees will be required to take a number of selected undergraduate courses as a condition for admission. Admission is based primarily on an applicant's undergraduate record; however, the promise of academic success is the essential factor for admission. In support of their application, persons may submit their scores from the Graduate Management Admissions Test (GMAT). An applicant may be required to take this test.

PROGRAM OF STUDY FOR THE MASTER OF SCIENCE IN TAXATION

Required Courses

Course Number and Title			*Credit*
A	601	Federal Income Taxation I	3
A	602	Federal Income Taxation II	3
A	604	Corporate Income Taxation I	3
A	605	Corporate Income Taxation II	3
A	607	Tax Accounting	3
A	608	Estate & Gift Taxation	3
A	614	Federal Tax Practice & Procedure	3
A	615	Research Project in Federal Income Taxation	3
			24
		Electives	12
		Total	36

Elective Courses

A	603	Federal Income Tax III
A	606	Corporate Income Tax III
A	609	State & Local Taxation
A	610	Consolidated Returns
A	611	Income Taxation of Estates & Trusts
A	612	International Taxation
A	613	Taxation of Partnerships & Partners

MASTER OF SCIENCE IN COMPUTER AND INFORMATION SCIENCE

The MSCIS curriculum is interdisciplinary with a software orientation. It is designed to provide a high-level academic background for CIS managers and systems analysis in all career areas. A wide selection of electives allows the student to concentrate in either technical or business applications.

Degree Requirements

The basic MSCIS program consists of 48 credit hours. Up to 18 of these credit hours may be waived on the basis of undergraduate coursework, leaving a minimum requirement of 30 credit hours. All waivers must be approved in writing by the Industrial Engineering Department, and are conditional upon subsequent academic performance. Graduate credit may be transferred from other accredited institutions, but in all cases the residence requirement for a degree shall be 30 credit hours earned at the University of New Haven. In some cases, the program coordinator may permit substitution of relevant courses in place of the required courses.

Seminar Project

The MSCIS program requires all students to complete IE-698 Seminar Project. This requirement is met by the preparation of a relevant seminar project report, prepared under the direction of a faculty advisor. Project reports must be of professional quality and formally prepared, consistent with the requirements specified in "A Manual for the Preparation of Graduate Theses and Seminar Projects," published by the Graduate School. Two copies of the report are deposited in the Library. The complete and final manuscript must be submitted to the project advisor prior to the end of the tenth week of the trimester in which the candidate expects to complete the requirements for his degree. The final approval copies of the project must also be submitted to the Dean of the Graduate School 3 weeks prior to Commencement. A student is expected to complete the project within twelve months of initial registration for IE 698. It is suggested that a student begin work on the seminar project after having completed 15 to 21 credit hours.

In certain cases, students who routinely complete projects similar to the required Seminar Project as a part of their professional duties may petition to satisfy the Seminar Project requirement by taking two advanced industrial engineering electives in place of the project. Such a substitution must have the prior written approval of the MSCIS program coordinator.

PROGRAM OF STUDY FOR THE MASTER OF SCIENCE IN COMPUTER AND INFORMATION SCIENCE DEGREE

Required Courses

Course Number and Title			*Credit*
IE	603C	Introduction to Digital Computers (COBOL), *or*	
IE	603F	Introduction to Digital Computers (FORTRAN)	3
M	610	Fundamentals of Calculus and Linear Algebra	3
IE	604	Management Systems	3
IE	614	Data Information Systems	3
EE	615	Computer Logic Design	3
IE	601	Introduction to Operations Research/Management Science	3
IE	605	Advanced Business Programming I, *or*	
IE	606	Advanced Technical Programming II	3
IE	610	Computer Systems Design	3
IE	698	Seminar Project	3
		Electives (IE, Math, or EE)	9
		Electives	12
			48

MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING

The MSIE is considered a fifth-year or professional degree, and is designed to provide a broad background in operations research, man-machine systems, and human factors analysis to students with undergraduate engineering or technical degrees from ECPD accredited schools.

Degree Requirements

The basic MSIE program consists of 48 credit hours. Up to 18 of these credit hours may be waived on the basis of undergraduate coursework, leaving a minimum requirement of 30 credit hours. All waivers must be approved in writing by the Industrial Engineering Department, and are conditional upon subsequent academic performance. Graduate credit may be transferred from other accredited institutions, but in all cases the residence requirement for a degree shall be 30 credit hours completed at the University of New Haven. In some cases, the program coordinator may permit substitutions of relevant courses in place of the required courses.

Seminar Project

The MSIE program requires all students to complete IE 698 Seminar Project. This requirement is met by the preparation of a relevant seminar project report, prepared under the direction of a faculty advisor. Project reports must be of professional quality and formally prepared, consistent with the requirements specified in "A Manual for the Preparation of Graduate Theses and Seminar Projects," published by the Graduate School. Two copies of the project are deposited in the Library. The complete and final manuscript must be submitted to the project advisor prior to the end of the tenth week of the trimester in which the candidate expects to complete the requirements for his degree. The final approved copies of the project must also be submitted to the Dean of the Graduate School 3 weeks prior to Commencement. A student is expected to complete the project within twelve months of the initial registration for IE 698. It is suggested that a student begin work on the seminar project after having completed 15 to 21 credit hours.

In certain cases, students who routinely complete projects similar to the required Seminar Project as a part of their professional duties may petition to satisfy the Seminar Project requirement by taking two advanced industrial engineering electives in place of the project. Such a substitution must have the prior written approval of the MSIE program coordinator.

PROGRAM OF STUDY FOR THE MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING DEGREE

Required Courses

Course Number and Title			*Credit*
IE	601	Introduction to Operations Research/Management Science	3
IE	607	Probability Theory	3
IE	603F	Introduction to Digital Computers (FORTRAN)	3
EC	604	Macroeconomic Analysis, *or*	
EC	603	Microeconomic Analysis	3
IE	651	Human Engineering I	3
IE	602	Quality Analysis	3
EC	625	Industrial Relations	3
P	619	Organizational Behavior, *or*	
P	620	Industrial Psychology	3
IE	698	Seminar Project	3
		Electives (IE or Math Courses)	9
		Electives	12
			48

MASTER OF SCIENCE IN OPERATIONS RESEARCH

The MSOR curriculum provides thorough coverage of the theory, methodology, and application of the techniques of operations research and systems analysis. The program is designed to prepare qualified applicants from diverse backgrounds to deal with major social, industrial, and business problems.

Degree Requirements

The basic MSOR program consists of 48 credit hours. Up to 18 of these credit hours may be waived on the basis of undergraduate coursework, leaving a minimum requirement of 30 credit hours. All waivers must be approved in writing by the Industrial Engineering Department, and are conditional upon subsequent academic performance. Graduate credit may be transferred from other accredited institutions, but in all cases the residence requirement for a degree shall be 30 credit hours completed at the University of New Haven. In some cases, the program coordinator may permit substitutions of relevant courses in place of the required courses.

Seminar Project

The MSOR program requires all students to complete IE 698 Seminar Project. This requirement is met by the preparation of a relevant seminar project report, prepared under the direction of a faculty advisor. Project reports must be of professional quality and formally prepared, consistent with the requirements specified in "A Manual for the Preparation of Graduate Theses and Seminar Projects," published by the Graduate School. Two copies of the report are deposited in the Library. The complete and final manuscript must be submitted to the project advisor prior to the end of the tenth week of the trimester in which the candidate expects to complete the requirements for his degree. The final approved copies of the project must also be submitted to the Dean of the Graduate School 3 weeks prior to Commencement. A student is expected to complete the project within twelve months of the initial registration for IE 698. It is suggested that a student begin work on the seminar project after having completed 15 to 21 credit hours.

In certain cases, students who routinely complete projects similar to the required Seminar Project as a part of their professional duties may petition to satisfy the Seminar Project requirement by taking two advanced industrial engineering electives in place of the project. Such a substitution must have the prior written approval of the MSOR program coordinator.

PROGRAM OF STUDY FOR THE MASTER OF SCIENCE IN OPERATIONS RESEARCH DEGREE

Required Courses

Course Number and Title			*Credit*
IE	601	Introduction to Operations Research/Management Science	3
IE	603F	Introduction to Digital Computers (FORTRAN)	3
IE	607	Probability Theory	3
M	610	Fundamentals of Calculus and Linear Algebra	3
EC	604	Macroeconomic Analysis, *or*	
EC	603	Microeconomic Analysis	3
IE	621	Linear Programming	3
IE	622	Queuing Theory	3
IE	685	Theory of Optimization	3
IE	686	Inventory Analysis	3
IE	688	Design of Experiments	3
IE	698	Seminar Project	3
		Electives (IE, Math, or EE)	6
		Electives	9
			48

MASTER OF SCIENCE IN CRIMINAL JUSTICE

The President's Commission on Law Enforcement and Administration of Justice assigned a high priority to the task of improving the education and training of personnel entrusted with the administration of criminal justice in the United States.

A key objective of the Master of Science in Criminal Justice program is the training and education of men and women planning careers in the field of criminal justice as well as the advanced training and education of the men and women who staff the agencies and institutions of the criminal justice system.

The University views the criminal justice system as one continuous integrated process from a study of the nature of deviant behavior to the role of rehabilitation and parole.

The program stresses a broad understanding of the social and behavioral sciences, the institutions of the criminal justice system, and the development of methodological tools and skills. This is done somewhat at the expense of courses that are narrowly professional in the belief that the field of criminal justice is dynamic and that a broad understanding of the social and behavioral sciences and the methodological skills and tools will prove more valuable to a student's career in the long run than narrow professional training.

The broad fields of the criminal justice program at the University are social and behavioral science, the institutions of the criminal justice system, and methodological tools and skills.

The courses in the area of social and behavioral science stress the theories of the behavior of man in a social order and the sanctions imposed by different societies to control the social behavior of their members.

Courses in the area of criminal justice institutions stress the study of the existing system from the police, through the courts, the penitentiaries, and the system of probation and parole.

The methodological courses expose students to the tools of research and analysis and the contribution of systems analysis to the efficient administration of the criminal justice system.

Admission Policy

All MSCJ applicants must take the Aptitude Test of the Graduate Record Examination or the Miller Analogies Test as part of the admission procedure. GRE applications are available in the Graduate Office or by writing directly to the Educational Testing Service, Princeton, N.J.

Requirements for the Master of Science in Criminal Justice Degree

A total of 45 credit hours is required of candidates for the degree of Master of Science in Criminal Justice.

Candidates for the degree of Master of Science in Criminal Justice must complete 21 credit hours of required courses in the core curriculum. In addition to the required core, students may select 24 credit hours of electives from one of three major areas of concentration. The three areas of concentration are: social and behavioral sciences, criminal justice institutions, and criminal justice systems.

Electives listed are suggested electives; other electives may be taken with the approval of the student's advisor.

Except for the required core, the student's program of study is determined largely by the student and his faculty advisor.

Credit may be given for graduate courses taken at other accredited institutions.

Thesis

Students electing to write a thesis must register for thesis with the department. The thesis must show ability to organize material in a clear and original manner and present well-reasoned conclusions.

The thesis is written under the direction of the faculty member in charge of the departmental thesis program or a faculty member with special competence in the subject matter covered by the thesis. The complete and final manuscript must be submitted to the thesis advisor prior to the end of the tenth week of the trimester in which the student expects to complete the requirements for his degree. The two final approved copies must also be submitted to the Dean of the Graduate School 3 weeks prior to Commencement. No final examination on the thesis is required.

The thesis is deposited permanently in the Library. Students are required to submit two copies of the thesis for the Library. Additional copies of the thesis are usually required. For this requirement and other regulations regarding the preparation of a thesis, students should consult the "Manual for the Preparation of Graduate Theses and Seminar Projects." Copies of the manual are available in the Graduate School Office.

PROGRAM OF STUDY FOR THE MASTER OF SCIENCE IN CRIMINAL JUSTICE DEGREE

Required Courses

Course Number	*and Title*	*Credit*
CJ 601	Seminar in Interpersonal Relations	3
CJ 605	Seminar in Social Deviance	3
CJ 607	Seminar in Criminal Justice Institutions	3
CJ 628	Introduction to Systems Theory	3
CJ 635	Statistics in the Public Sector	3
CJ 637	Contemporary Issues in Criminal Justice	3
CJ 642	Research Techniques in the Social Sciences	3
	Electives	24
		45

Areas of Concentration

Social and Behavioral Science

CJ 602	Seminar in Social Control
CJ 604	Seminar in Theory and Philosophy of Law
CJ 609	Criminological Theory
CJ 620	Sociology of Criminal Law
CJ 622	Learning Theory: Applications in Criminal Justice
CJ 624	Group Process in Criminal Justice
CJ 630	Delinquency and Juvenile Crime
CJ 658	Psychiatry and the Law
CJ 672	Innovative Treatment Programs in Corrections
P 631	Social Psychology
P 633	Problems of Drug Abuse
P 634	Personality Assessment
P 636	Abnormal Psychology
PS 601	Constitutional Law
PS 602	Civil Liberties and Rights
PS 605	Criminal Law
SO 601	Minority Group Relations and Urban Sociology
SO 605	Culture and Personality
SO 609	Comparative Social Organization

Criminal Justice Institutions

CJ 608	Law and Evidence
CJ 610	Administration of Justice
CJ 612	Concepts and Issues in Police Administration
CJ 613	Alternatives for Criminal Prosecution
CJ 615	Forensic Science in the Administration of Justice
CJ 617	Correctional Administration
CJ 618	Probation and Parole: Theory and Practice
CJ 619	Seminar in Comparative Criminal Justice Systems
CJ 644	Police in Urban Society
CJ 651	Problems in the Administration of Justice
CJ 655	Bureaucratic Organization of Criminal Justice
CJ 670	Selected Issues in Criminal Justice: Topics to Vary
PA 604	Seminar in Communities and Social Change

Criminal Justice Systems

IE 603	Introduction to Digital Computers
IE 604	Management Systems
IE 610	Computer Systems Design
IE 614	Data Information Systems
IE 621	Linear Programming
IE 683	Systems Analysis
IE 688	Seminar in Inferential Statistics
IE 689	Seminar in Descriptive Statistics

Independent Study

CJ 690	Research Project I
CJ 691	Research Project II
CJ 693	Criminal Justice Internship I
CJ 694	Criminal Justice Internship II
CJ 695	Independent Study
CJ 697	Thesis I
CJ 698	Thesis II
CJ 699	Thesis III

MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCES

The environmental sciences program is intended to meet the needs of scientists for academic work in environmental studies beyond the baccalaureate level. The program is interdisciplinary in nature and incorporates science and engineering courses. This program is designed to accommodate the student with a degree in one of the natural sciences.

There exists today a need for a substantial number of scientists knowledgeable in environmental areas. Industries which are required to control the pollution of air and water need environmental scientists. Federal, state and local governments must hire employees and consultants to assist them in environmental matters. Other new vistas will undoubtedly open to the environmental scientists of the future. Environmental scientists will be in increasingly greater demand with the continually increasing problems of pollution.

The recognition and solution of environmental problems are largely the responsibility of scientists and engineers. To perform effectively in this massive effort, they must be technically competent as well as knowledgeable in social and economic matters.

This program provides the advanced educational skills necessary to meet the ever increasing need for scientists with an environmental background. It is designed to offer vigorous, professionally oriented, science and enginering courses in the areas of solid waste, water, and air pollution.

Approximately two-thirds of the program consists of a required sequence of courses which each student must complete. The balance of the program consists of courses selected from the list of electives. Selection will be based on the student's principal field of interest. Each student, upon entering this program, will be assigned a faculty advisor who will consult with the student during his program of study and will assist the student in selection of suitable electives. The faculty advisor will also act as the student's research project advisor.

Degree Requirements

A total of 39 credit hours must be completed to earn the Master of Science in Environmental Sciences degree. The transfer of credit earned at other institutions will be allowed under the rules of the Graduate School and subject to the following conditions: a) the courses were at the graduate level, b) each grade was B or better, and c) the courses did not fulfill requirements for any other degree already earned by the student. A minimum of thirty graduate level credit hours must be completed at the University of New Haven prior to the granting of a degree.

Admission Policy

Candidates for admission to the environmental sciences program would be expected to have a degree in one of the natural sciences where certain prerequisite courses have been completed. Students without these courses would be admitted to the program after completing these prerequisites.

PROGRAM OF STUDY FOR THE MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCES DEGREE

Required Courses

Course Number and Title		*Credit*
CE 601	Water Treatment, *or*	
CE 602	Wastewater Treatment	3
CE 605	Solid Waste Management	3
CE 606	Environmental Law & Legislation, *or*	
EC 608	Economics for Public Administrators	3
CH 601	Environmental Chemistry	3
SC 601	Ecology for Environmental Engineers	3
SC 602	Pollutants & the Aquatic Environment	3
SC 603	Air Pollution	3
SC 607	Characterization & Treatment of Wastes w/Lab	3
SC 608	Water Quality	3
SC 612	Freshwater & Marine Biology	3
SC 690	Research Project	3
	Electives (Approved)	6
		39

Suggested Electives

SC 621	Microbiology
SC 622	Bacteriology

MASTER OF SCIENCE IN ENVIRONMENTAL ENGINEERING

The environmental engineering program is intended to meet the needs of engineers for academic work beyond the baccalaureate level. The program is interdisciplinary in nature and incorporates both engineering and science courses.

There exists today a need for a substantial number of engineers knowledgeable in environmental areas. Industries which are required to control the pollution of air and water need environmental engineers. Federal, state and local governments must hire employees and consultants to assist them in environmental matters. Other new vistas will undoubtedly open to the environmental engineers in the future. Environmental engineers will be in increasingly greater demand with the continually increasing problems of pollution.

The recognition and solution of environmental problems are largely the responsibility of engineers and scientists. To perform effectively in this massive effort, they must be technically competent as well as knowledgeable in social and economic matters.

This program provides the advanced educational skills necessary to meet the ever increasing need for engineers with an environmental background. It is designed to offer vigorous, professionally oriented, engineering and science courses in the areas of solid waste, water, and air pollution.

Approximately two-thirds of the program consists of a required sequence of courses which each student must complete. The balance of the program consists of courses selected from the list of electives. Selection will be based on the student's principal field of interest. Each student, upon entering this program, will be assigned a faculty advisor who will consult with the student during his program of study and will assist the student in selection of suitable electives. The faculty advisor will also act as the student's research project advisor.

Degree Requirements

A total of 39 credit hours must be completed to earn the Master of Science in Environmental Engineering degree. The transfer of credit earned at other institutions will be allowed under the rules of the Graduate School and subject to the following conditions: a) the courses were at the graduate level, b) each grade was B or better, and c) the courses did not fulfill requirements for any other degree already earned by the student. A minimum of thirty graduate level credit hours must be completed at the University of New Haven prior to the granting of a degree.

Admission Policy

Candidates for admission in the environmental engineering program are expected to have an engineering degree from an institution accredited by the Engineers Council for Professional Development.

PROGRAM OF STUDY FOR THE MASTER OF SCIENCE IN ENVIRONMENTAL ENGINEERING DEGREE

Required Courses

Course Number and Title		*Credit*
CE 601	Water Treatment	3
CE 602	Wastewater Treatment	3
CE 605	Solid Waste Management	3
CE 606	Environmental Law & Legislation, *or*	
EC 608	Economics for Public Administrators	3
CH 601	Environmental Chemistry	3
SC 601	Ecology for Environmental Engineers	3
SC 602	Pollutants & the Aquatic Environment, *or*	
SC 603	Air Pollution	3
CE 612	Advanced Wastewater Treatment	3
CE 690	Research Project	3
	Electives (CE)	6
	Electives (Approved)	6
		39

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING

This program is intended to meet the needs of professionally employed engineers and scientists for academic work beyond the baccalaureate level. It has been designed to deepen the understanding of modern analysis and synthesis techniques as they apply to engineering design. A major goal of this program is to provide a thorough discussion of the characteristics of the latest devices and systems and of their applications in current engineering design. Both analytical and numerical procedures are developed with particular emphasis on the use of computers for problem solving and as elements in larger systems.

The program centers on a core sequence which all students are expected to take. The core courses contain advanced methods of analysis and design which are of common interest to electrical engineers. Each student completes his program by electing courses that are particularly suited to his current professional interests. In general the elective courses must be chosen from those listed below. Early in his program the student, with the help and approval of his advisor, prepares a detailed plan insuring an overall educational experience that is integrated and logical. All decisions regarding both core and elective courses are subject to the final approval of the student's advisor.

Degree Requirements

A minimum Total of 39 credit hours must be completed to earn the Master of Science in Electrical Engineering degree. The transfer of credit earned at other institutions will be allowed within the rules of the Graduate School and under the following conditions: a) the courses were at the graduate level; b) each grade was B or better; and c) the courses did not fulfill requirements for any other degree already earned by the student. All credits offered toward any degree must be earned within a continuous time span of five years.

Admission Policy

Admission to the program is open to persons holding an undergraduate engineering degree from an institution accredited by the Engineers Council for Professional Development (ECDP). Though admission decisions are based primarily on an applicant's undergraduate record, the promise of academic success is the essential factor for admission.

Thesis

There is no specific thesis requirement for the Master of Science in Electrical Engineering. However, students are encouraged to submit a thesis proposal covering applied research in an area of mutual interest to the student and a supervising member of the faculty. If a proposal shows promise of yielding a worthwhile contribution to the professional objectives of the student and a faculty member accepts the role of supervisor, the student may embark upon the research and earn 6 elective credits. Students electing to do a thesis project will be expected to make an oral presentation of the results of the project.

The complete and final manuscript must be submitted to the thesis advisor prior to the end of the tenth week of the trimester in which the candidate expects to complete the requirements for his degree. The final approved copies of the thesis must also be submitted to the Dean of the Graduate School 3 weeks prior to commencement.

The thesis is deposited permanently in the Library. Students are required to submit two copies of the thesis for the Library. Additional copies of the thesis are usually required. For this requirement and other regulations regarding the preparation of a thesis, students should consult the "Manual for the Preparation of Graduate Theses and Seminar Projects." Copies of the manuals are available in the Graduate School Office.

PROGRAM OF STUDY FOR THE MASTER OF SCIENCE IN ELECTRICAL ENGINEERING DEGREE

Required Courses

Course Number and Title		*Credit*
EE 601	Engineering Analysis I	3
EE 602	Engineering Analysis II	3
M 620	Numerical Analysis	3
IE 685	Theory of Optimization	3
EE 603	Discrete & Continuous Systems I	3
EE 604	Discrete & Continuous Systems II	3
EE 630	Electronic Instrumentation I	3
EE 640	Computer Engineering I	3
EE 650	Random Signal Analysis	3
	Electives (Approved)	12
		39

Elective Courses

EE 605	Modern Control Systems
EE 608	Computer Aided Design
EE 631	Electronic Instrumentation II
EE 634	Digital Signal Processing I
EE 635	Digital Signal Processing II
EE 641	Computer Engineering II
EE 645	Power Systems Engineering I
EE 646	Power Systems Engineering II
EE 670	Microprocessors — Theory & Applications
EE 680	Special Topics — Electrical Engineering
EE 695	Independent Study I
EE 696	Independent Study II
EE 698	Thesis I
EE 699	Thesis II

MASTER OF ENGINEERING

This program is intended to meet the needs of professionally employed engineers and scientists for academic work beyond the baccalaureate level. It has been designed to increase competence in modern analysis and synthesis techniques as they apply to engineering design. Both analytical and numerical procedures are developed with particular emphasis on the applications of the digital computer to the solution of engineering problems.

The program centers on a core sequence which all students are expected to take. The core courses contain advanced methods of analysis and design which are of common interest in engineering work. Also included in the core requirements are courses taken in the School of Business Administration. They are intended to enhance the student's understanding of modern business methods and practice. The courses are designed to take advantage of the student's background in engineering and adapted to meet his needs for concentrated study in areas of finance, accounting, economics and administration.

The core sequence develops techniques and models of engineering systems within a broad framework including topics of immediate interest in all branches of engineering. In particular, the analytical and numerical methods of the core are prerequisites for the elective courses.

Each student completes his program by electing a series of courses in Mechanical engineering that are particularly suited to his current professional interests. Early in his program the student, with the approval of his advisor, prepares a detailed plan insuring an overall educational experience that is integrated and logical. All decisions regarding both core and elective requirements are subject to the final approval of the student's advisor.

Thesis

There is no specific thesis requirement for the Master of Engineering degree. However, students are encouraged to submit a thesis proposal covering applied research in an area of mutual interest to the student and a supervising member of the faculty. If a proposal shows promise of yielding a worthwhile contribution to the professional objectives of the student and a faculty member accepts the role of supervisor, the student may embark upon the research and earn 6 elective credits.

The complete and final manuscript must be submitted to the thesis advisor prior to the end of the tenth week of the trimester in which the candidate expects to complete the requirements for his degree. The final approved copies of the thesis must also be submitted to the Dean of the Graduate School 3 weeks prior to commencement.

The thesis is deposited permanently in the Library. Students are required to submit two copies of the thesis for the Library. Additional copies of the thesis are usually required. For this requirement and other regulations regarding the preparation of a thesis, students should consult the "Manual for the Preparation of Graduate Theses and Seminar Projects." Copies of the manual are available in the Graduate School Office.

Degree Requirements

A minimum total of 39 credits must be completed to earn the Master of Engineering Degree. The transfer of credit earned at other institutions will be allowed within the rules of the Graduate School and under the following conditions: a) the courses were at the graduate level; b) each grade was B or better; and c) the courses did not fulfill requirements for any other degree already earned by the student. All credits offered toward the Master of Engineering Degree must be earned within a continuous time span of five years.

Admission

Admission to the program is open to persons holding an undergraduate engineering degree from an institution accredited by the Engineers Council for Professional Development (ECPD). Though admission decisions are based primarily on an applicant's undergraduate record, the promise of academic success is the essential factor for admission.

PROGRAM OF STUDY FOR THE MASTER OF ENGINEERING DEGREE

Required Courses

Course Number and Title		*Credit*
EE 601	Engineering Analysis I	3
M 624	Applied Mathematics	3
M 620	Numerical Analysis	3
IE 685	Theory of Optimization	3
EC 603	Microeconomic Analysis*	3
EC 604	Macroeconomic Analysis*	3
MG 637	Management*	3
	Electives	18
		39

*Other courses may be substituted with the written approval of an advisor.

Elective Courses

Course Number and Title		*Credit*
ME 610	Mechanics I	3
ME 611	Mechanics II	3
ME 615	Theory of Elasticity I	3
ME 616	Theory of Elasticity II	3
ME 620	Classical Thermodynamics I	3
ME 621	Classical Thermodynamics II	3
ME 622	Statistical Thermodynamics	3
ME 625	Mechanics of Continua I	3
ME 626	Mechanics of Continua II	3
ME 630	Advanced Compressible Fluid Flow I	3
ME 631	Advanced Compressible Fluid Flow II	3
ME 632	Advanced Heat Transfer	3
ME 635	Advanced Turbomachinery	3
ME 640	Combustion	3
ME 645	Computational Fluid Dynamics and Heat Transfer	3
ME 660	Advanced Design Philosophies	3
ME 680	Special Topics—Mechanical Engineering	3
ME 690	Research Project	3
ME 698	Thesis I	3
ME 699	Thesis II	3

DUAL DEGREE PROGRAM

MASTER OF BUSINESS ADMINISTRATION/ MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING

The Graduate School has always encouraged interdisciplinary studies. To foster a broader expertise in the areas of Business Administration and Industrial Engineering, a student can now earn both the Master of Business Administration and the Master of Science in Industrial Engineering by successfully completing the Dual Degree Program. The program is intended for students with undergraduate engineering or technical degrees from ECPD accredited schools.

Degree Requirements

The basic MBA/MSIE program consists of 72 credit hours. Up to 12 of these credit hours may be waived on the basis of undergraduate course work, leaving a minimum requirement of 60 credit hours. All waivers must be approved in writing by the appropriate department and are conditional upon subsequent academic performance. Graduate credit may be transferred from other accredited institutions, but in all cases the residence requirement for the two degrees shall be 60 credit hours completed at the University of New Haven. In addition, a minimum of 21 credit hours must be earned in business courses and a minimum of 21 credit hours must be earned in engineering courses.

Thesis

Students may elect to write a thesis or seminar project. The thesis or project must show ability to organize material in a clear and original manner and present well-reasoned conclusions.

The thesis/project is written under the direction of the faculty member in charge of the departmental program or a faculty member with special competence in the subject matter covered by the thesis/project. The complete and final manuscript must be submitted to the thesis/project advisor prior to the end of the tenth week of the trimester in which the candidate expects to complete the requirements for his degree. The final approved copies of the thesis/project must also be submitted to the Dean of the Graduate School 3 weeks prior to Commencement.

The thesis/project is deposited permanently in the Library. Students are required to submit two copies of the thesis/project for the Library. Additional copies of the thesis/project are usually required. For this requirement and other regulations regarding the preparation of a thesis/project, students should consult the "Manual for the Preparation of Graduate Theses and Seminar Projects." Copies of the manual are available in the Graduate School Office.

PROGRAM OF STUDY FOR THE MASTER OF BUSINESS ADMINISTRATION/ MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING DEGREE

Required Courses

Course Number and Title			*Credit*
A	621	Managerial Accounting	3
FI	615	Finance	3
MK	609	Marketing	3
QA	605	Advanced Statistics	3
MG	637	Management	3
EC	625	Industrial Relations	3
EC	603	Microeconomic Analysis	3
EC	604	Macroeconomic Analysis	3
P	619	Organizational Behavior, *or*	
P	620	Industrial Psychology	3
IE	601	Introduction to Operations Research/Management Science	3
IE	602	Quality Analysis	3
IE	603F	Introduction to Digital Computers (FORTRAN)	3
IE	604	Management Systems	3
IE	607	Probability Theory	3
IE	621	Linear Programming	3
IE	651	Human Engineering I	3
IE	686	Inventory Analysis	3
		Thesis (Business), *or* Seminar Project (IE)	3
		Electives (Business)	6
		Electives (IE or Math)	6
		Electives (unrestricted)	6
			72

COURSE DESCRIPTIONS

Department of Accounting

A600 Accounting **No Credit**

The principles and procedures underlying the generation of financial accounting information.

A601 Federal Income Taxation I

An introduction to tax policy and the basic principles of the Federal Income Tax Law. Coverage entails the key concepts of gross income, adjusted gross income, deductions, exemptions and credits, with special attention given to the provisions of the Internal Revenue Code affecting individual taxpayers.

A602 Federal Income Taxation II

A continuation of Federal Income Taxation I emphasizing the basic provisions concerning dispositions of property: analysis of basis, recognition of gain or loss, capital asset transactions and non-recognition exchanges. Coverage extended to assignment of income theories, tax minimization and maxi-tax and deferred payment sales.

A603 Federal Income Taxation III

Advanced concepts of Federal Income Taxation. Further study of capital gains and losses including stock options, mortgages, bootstrap sales, sale of patent rights and know-how, sale of copyrights and tax shelter and deferral techniques. Principles of income in respect of a decedent are also introduced.

A604 Corporate Income Taxation I

A foundation course analyzing the basic Federal income provisions affecting corporations and shareholders. Course coverage includes organization of the corporation, corporate capital structure, corporate distributions, stock redemptions, bail-out techniques and liquidations.

A605 Corporate Income Taxation II

A detailed analysis of the Federal income tax rules covering corporate reorganizations and divisions. Also discussed are some of the non-tax aspects of corporate reorganizations such as, S.E.C., anti-trust, and business reasons for choice of particular method.

A606 Corporate Income Taxation III

Advanced study in the corporate tax area including sub-chapter S corporations, collapsible corporations, accumulated earnings tax, affiliated corporations and carryover of corporate tax attributes.

A607 Tax Accounting

Investigation of such areas as: problems of allocating income and deductions to the proper tax year, permissible tax accounting methods, depreciation, inventory methods, net operating losses, installment reporting, change in accounting method and comparison of business and tax accounting principles.

A608 Estate and Gift Taxation

A comprehensive introduction to, and analysis of, the Federal estate and gift tax laws including basic principles of estate planning. Procedures for preparation of the estate and gift tax returns are treated. Brief coverage is also given to state death and inheritance taxes.

A609 State and Local Taxation

The tax problems encountered at the state and local level by businesses engaged in interstate commerce. Federal limitations on the taxation of multistate enterprises and jurisdictional problems are examined. Specific areas covered are: license to do business, net income, franchise, gross receipts, property and sales and use taxes. Apportionment problems are examined in detail.

A610 Consolidated Returns

A thorough analysis of the Federal consolidated tax return provisions including eligibility, and whether to file a consolidated taxable income; intercompany transactions and deferral concepts; basis in the disposition of stock of a subsidiary; computation of earnings and profits; and mechanics of preparing the consolidated return.

A611 Income Taxation of Estates and Trusts

Federal income taxation of estates, trusts, grantors, and beneficiaries. Topics are simple and complex trusts, throwback rules, taxable and distributable net income, assignment of income concepts and income in respect of a decedent — preparation of the estate and trust returns.

A612 International Taxation

Consideration of the Federal income tax treatment of non-resident aliens and foreign corporations and the foreign income of U. S. residents and domestic corporations; comparison of alternative methods of engaging in operations abroad; foreign tax credit; allocations under Code Section 482; Section 367 rulings; and the effect of tax treaties.

A613 Taxation of Partnerships and Partners

A study of the Federal income tax problems encountered in the formation and operation of a partnership, including computations of taxable income, sale of a partnership interest, withdrawal of a partner, death or retirement of a partner, and distribution of partnership assets. Limited partnerships are also covered. Procedure for preparation of the partnership return.

A614 Federal Tax Practice and Procedure

A study of the history and organization of the Internal Revenue Service, the selection of returns for audit and the review steps at the administrative level. Code provisions covered will include: filing requirements, statutory notices, restrictions on assessment, statute of limitations, refund procedures, waivers, closing agreements, protests, and rulings.

A615 Research Project in Federal Income Taxation

This course is devoted to a study of the techniques and tools of tax research. Reference sources studies include tax loose-leaf servics, I.R.S Cumulative Bulletin, court cases, Congressional committee reports, textbooks and published articles. A significant research paper devoted to a subject of topical interest is required.

A640 Advanced Problems in Budgeting

A comprehensive analysis of the principles and practical applications of budgeting for profit and not-for-profit organizations. The scope and limitations of the budgeting process is examined with a view to assessing its usefulness for both long and short-range decision-making.

Prerequisite: 6 hours of Cost Accounting

A641 Accounting Information Systems

An examination of the function and limitations of internal accounting information systems and their relationship to other decision-oriented business information systems.

Prerequisite: A621

A642 Operational Auditing

An analysis of the principles underlying and the procedures applying the function of auditing the results of firm-related business decisions.

Prerequisite: A621

A650 Advanced Accounting Theory

Considers the theoretical aspects of accepted accounting principles and their significance as a frame of reference for the evaluation of accounting practices. Considerable attention is focused on the role of regulatory agencies and professional accounting organizations with regard to their influences upon accounting theory and practice.

Prerequisite: 6 hrs. of Intermediate Accounting.

A651 Financial Accounting Seminar

An examination and evaluation of current literature in external accounting issues and related fields.

Prerequisite: A650

A652 Advanced Auditing

An analysis of the contemporary problems surrounding the attest function performed by the professional independent auditor.

Prerequisite: 3 hours of Auditing

A653 Accounting for the Not-for-Profit Organizations

An intensive examination of the contemporary views toward financial reporting for the not-for-profit organizations.

Prerequisite: 6 hrs. of Intermediate Accounting

A654 Financial Statements: Reporting and Analysis

An examination of financial reporting practices for financial statement analyses in view of modern theoretical and empirical financial decision-making research.

Prerequisite: FI651

A656 International Accounting

An analysis of the literature related to the current and growing interest in the development of accounting standards for business enterprises throughout the world.

Prerequisite: 6 hrs. of Intermediate Acounting

A661 Managerial Accounting Seminar

An examination and evaluation of current literature in internal accounting issues and related fields.

Prerequisite: A621

A690 Research Project

Independent study under the supervision of an advisor

Prerequisite: 15 graduate hours or permission of the instructor

A698 Thesis

Periodic meetings and discussions of the individual student's progress toward the completion of the thesis.

Prerequisite: 15 graduate hours

Department of Civil Engineering

CE601 Water Treatment

Advanced design principles and practices in water treatment processes; study of unit processes and operations; water treatment plant design; methods of population projection; water distribution systems.

CE602 Wastewater Treatment

Advanced design principles and practices in sewage treatment processes; study of unit processes and operations; secondary sewage treatment plant design; sludge handling and disposal; sewage collection systems; introduction to advanced treatment methods.

CE605 Solid Waste Management

Characteristics, volumes, collection and disposal of solid waste and refuse. Design of processing, recycling, and recovery equipment, landfill design and operation, resource recovery, incineration.

CE606 Environmental Law & Legislation

Review and techniques of enforcement of state and federal pollution control laws and regulations; effects on waste treatment criteria and design and evaluation of municipal ordnances; preparation of environmental assessments and impact statements.

CE612 Advanced Wastewater Treatment

Theories and principles of advanced sewage treatment including nutrient removal, demineralization, distillation, ozonation, carbon filtration, ion exchange, nitrification; design of facilities; upgrading secondary plants.

Prerequsite: CH601 which may be taken concurrently

CE613 Industrial Wastewater Control

Characteristics of industrial wastes, volumes, sources, types; methods of volume reduction, waste segregation, recovery, recycle, and waste treatment.

Prerequisite: CH 601

CE614 Water Pollution Control

Causes and effects of pollution on marine water bodies; study of chemical, biological, physical characteristics and responses; tidal effects; survey, sampling and modeling; dredge spoil disposal; estuarine ecology.

CE615 Rural and Agricultural Waste Disposal

Handling and disposal of domestic wastewaters in rural areas; characteristics and treatment of agricultural wastewaters and waste solids; lagooning, composting, soil injection and application.

CE616 Ground Water Waste Disposal

Study of effects of disposal of wastewaters in ground waters; travel of pollutants through soil; removal of nutrients and pollutants by soil interactions; leachate identification and control from refuse disposal areas.

CE617 Special Problems in Wastewater Management

Solutions to problems in sewer infiltration, combined sewers and sewer separation; management techniques of sewer systems, user charges and capital cost recovery in municipal sewage collection and treatment facilities. Preparation of Cost Effectiveness Studies.

CE618 Air Pollution Control

Sources and effects of air pollution, monitoring, sampling and modeling, design of incineration devices and treatment facilities. Enforcement techniques, complex sources, computer simulation.

CE680 Special Topics — Civil Engineering

A study of related topics of particular interest to students and instructor. Course may be taken more than once.

CE690 Research Project

Independent study under the guidance of an advisor into an area of mutual interest, each study terminating in a technical report of academic merit. Research may be in such environmental areas as water resources, stream pollution, solid waste management, and air pollution.

Prerequisite: 18 graduate hours or by permission of Chairman of Civil Engineering Department and advisor

CE698 Thesis I

Periodic meetings and discussions of the individual student's progress in the preparation of a thesis.

Prerequisite: 15 graduate hours

CE699 Thesis II

Prerequisite: CE698

CH601 Environmental Chemistry

Advanced study of the chemical reactions necessary to understand the impact that man's activities have on the environment. Areas considered include water and air pollution, power generation, and the release and use of industrial organic chemicals.

Department of Criminal Justice

CJ601 Seminar in Interpersonal Relations

Interpersonal communication in teaching, supervision, and in various work relationships. The criminal justice worker as a resource person and facilitator of others is stressed. Humanistic psychology and interpersonal psychology provide the theoretical base. Maximum enrollment 20 students.

CJ602 Seminar in Social Control

An examination of the formal and informal mechanism of controlling or conditioning the social behavior of man vis-a-vis the system of social norms, laws, and institutions. The implication of organizing the system of justice under a punishment or rehabilitative ethic will be considered.

CJ604 Seminar in Theory and Philosophy of Law

The theory and philosophy of law and the relationship between law and society. Emphasis on the nature of the judicial process, the issues of law and personal morality, non victim crimes, and the relationship of enforcement agencies to the rule of law.

CJ605 Seminar in Social Deviance

A survey of theories relating to the scope and nature of the crime problem. Consideration of the problems of deviancy, including social norms and deviancy, mental disturbances, juvenile crime, and the various possible and actual responses to deviancy. Various approaches to the problem of rehabilitation.

CJ607 Seminar in Criminal Justice Institutions

The institutions of law and law enforcement. Institutions as rehabilitation centers and the effective administration of such centers.

CJ608 Law and Evidence

Comprehensive analysis of the rules of evidence. Topics include judicial notice, presumptions, the nature of real and circumstantial evidence, hearsay evidence, confessions and admissions, and witnesses. Emphasis on evidence in criminal cases.

CJ609 Criminological Theory

An analytical review of the multidisciplinary theories of criminal behavior. The impact of various theoretical constructs and concepts on practice will be critically evaluated.

CJ610 Administration of Justice

The machinery of justice in theory and practice. The rule of law and its exceptions in the actual administration of justice. Emphasis on the progressive changes in the development of childrens' and adolescents' courts, probation, and classification clinics. Crime prevention and reforms of the criminal law. Special problems of justice and the poor. Administrative denials of justice, the insane offender, the white-collar criminal, and social reconstruction through law.

CJ612 Concepts and Issues in Police Administration

The development of the theory and practice of police administration in the United States. Significant developments and ideas of those who have made major contributions to American police administration.

CJ613 Alternatives to Prosecution

Areas to be covered will be the history, theory and practice of pre-trial diversion, as well as the legal, social and administrative problems inherent in diversionary approaches. Among the specific alternatives to be examined will be: youth service bureaus, family courts, citizen dispute settlement, community responsibility programs, and various pre-trial intervention programs.

CJ 615 Forensic Science in the Administration of Justice

The role of the natural science in the Administration of Justice in its broadest aspects. Current concepts, present status, and future needs of the forensic sciences. Specific topics in the forensic sciences and its interrelationship with legal issues would also be included.

CJ617 Correctional Administration

The basic organization and objectives of a department of correction. Specific administrative principles required for effective conduct and operation of a correctional organization.

CJ618 Probation and Parole: Theory and Practice

The philosophy, theory, and methods employed in probation, parole, and institutional treatment of the offender. The role of authority, casework, classification, treatment policy, and administrative organization in determining the consequences of correctional practice.

CJ619 Seminar in Comparative Criminal Justice Systems

A cross cultural study of police, court, and correctional systems and methods.

CJ620 Sociology of Criminal Law

A study of the social origins and consequences of criminal law and legal processes. Emphasis on problems of legal change and the structure and functioning of legal sanctions. Emphasis on social and institutional pressures in creating socio-legal policy.

CJ622 Learning Theory: Applications in Criminal Justice

Applications of the psychology of learning to police and correction settings.

CJ624 Group Process in Criminal Justice

Small group interaction; both theoretical and experimental facets of group process are presented. Group counseling and encounter groups.

CJ628 Introduction to Systems Theory

Concepts of systems theory and systems analysis in contemporary sociotechnical environments.

CJ630 Delinquency and Juvenile Crime

A general introduction to the field of delinquency and crime, including all aspects of the social, legal, and personal matrix out of which these forms of behavior emerge. Special emphasis will be given to the process and implications of delinquency labeling.

CJ635 Statistics in the Public Sector

Statistical techniques applied to the public sector. Descriptive statistics: measures of central tendency and variability. Introduction to statistical inference including sampling distributions and tests of significance. Some techniques of non-parametric statistics, multiple regression, and elementary decision theory. Analysis of variance and co-variance.

CJ637 Contemporary Issues in Criminal Justice

Topics selected by students relating to current issues and concerns in the field of criminal justice. Each student will be required to write a paper and deliver an oral presentation on his selected topic.

CJ642 Research Techniques in the Social Sciences

Research methodology as applied to problems and issues in the field of criminal justice.

CJ644 Police in Urban Society

An introduction to some of the current thinking and problems of policing in urban society. The course will examine such issues as the historical growth of the police, the role and mission of the police, measurement of the police tasks, police corruption and other topics of interest to the seminar members. The course will stress the development of analytic thinking in defining and dealing with police problems.

CJ651 Problems in the Administration of Justice

A critical analysis will be made of significant problems or obstacles in organization of social justice. Formal and informal processes and their interactional functions will be critically examined.

CJ655 Bureaucratic Organization of Criminal Justice

Through an application of modern organizational theory, a critical analysis of criminal justice agencies will be made. Emphasis will be placed on viewing criminal justice in theoretical perspective. Linkages between theory and operationalization of principles will be made.

CJ658 Psychiatry and the Law

An examination of issues that relate to the interaction between the law and mental illness and the general role of forensic psychiatry.

CJ670 Selected Issue: Seminar on Violence

An in-depth analysis of the role and forms of violence in American society. Emphasis is upon the roots, expressions, control and functions of aggressivity and assaultive behavior by individuals and groups.

CJ671 Selected Issue: Court Backlog

This seminar examines the phenomenon of overcrowding in the Criminal Courts and focuses on the possible reasons for the apparent inability of criminal justice to deal both fairly and effectively with an increasing volume of criminal cases.

CJ672 Innovative Treatment Programs in Corrections

The theory and practice of a wide range of innovative correctional treatment modalities will be analyzed. Students will be given the opportunity to participate in various experiential exercises and to develop and propose new treatment approaches.

CJ673 Selected Issue: Prosecution, Processes and Activities

An examination of the role of the prosecutor in the criminal justice system and the interrelationship with other components of the system. In particular, prosecutorial discretion, the possibility of its abuse and the desired degree of its visibility will be considered.

CJ674 Selected Issue: Lower Criminal Courts

This seminar analyzes the obstacles which hinder the delivery of quality criminal justice on the lower court level and examines efforts — past, present and future — at improving the performance of those courts.

CJ675 Selected Issue: Judicial Behavior

An examination of judicial discretion as it relates to the criminal justice system, its interrelationship with the other components of the system, its limitations and/or advantages and if and how it should be controlled.

CJ676 Selected Issue: Practicum in Clinical Interviewing

The application of interpersonal and counseling theory to the interview situation. Analysis of tape recorded interviews from the perspective of both theory and research. Therapeutic as well as nontherapeutic interviewing strategies will be examined and practiced.

CJ677 Selected Issue: Outstanding Practitioners Series

Leading experts from the criminal justice field present their major philosophies and ideas. Practitioners from law enforcement, corrections and the courts will participate, and post lecture discussion sessions conducted by a faculty member will critique and analyze the presentations.

CJ678 Selected Issue: Corruption in Criminal Justice

An examination of the nature, extent and consequences of corruption, crime and deviance in criminal justice agencies. Special emphasis on research and policy-making issues.

CJ679 Selected Issue: Seminar on Victimology

An examination of the "victimology" perspective in criminology and criminal justice. The course traces the history of victimology, examines the major empirical studies dealing with victim-precipitation, analyzes the legitimacy and value of the construct, and considers contemporary responses to crime which incorporate the principles of victimology, such as the "target-hardening" approach to crime prevention.

CJ690 Research Project I

Individual guidance on a research endeavor; this may include work on a thesis.

CJ691 Research Project II

Prerequisite: CJ690

CJ693 Criminal Justice Internship I

The student's formal educational development will be complemented by field placement experience in various criminal justice settings or agencies. Field experience will be supervised by designated agency and departmental personnel.

CJ694 Criminal Justice Internship II

Prerequisite: CJ693

CJ695 Independent Study

Student will engage in a directed independent learning experience. The topic and format to be agreed upon by student and supervising faculty.

CJ697 Thesis I

Period meetings and discussions of the individual student's progress toward the completion of the thesis.

Prerequisite: 15 graduate hours

CJ698 Thesis II

Prerequisite: CJ697

CJ699 Thesis III

Prerequisite: CJ697, CJ698

Department of English

E600 The Uses of Language **No Credit**

Limited to qualified international students who speak a language other than English. Emphasis upon conversation, pronunciation, composition, and laboratory work in the English language.

Department of Economics

EC603 Microeconomic Analysis

Topics in resource allocation and price determination. Theories of choice of consumers, firms, resource owners under monopoly, monopsony, competition, and alternative market forms.

EC604 Macroeconomic Analysis

An examination of the roles of consumption, investment, government finance, and money influencing national income and output, employment, the price level, and rate of growth. Policies for economic stability and growth.

EC608 Economics for Public Administrators

An examination of the roles of consumption, investment, government expenditure, and money influencing national income, output, employment, and price level, and growth rate. Special emphasis upon the roles of fiscal and monetary policy and the economics of contemporary social problems.

EC620 Economic History of Western Europe

A survey of the economic development of western Europe from 1500 to the present. Topics covered include mercantilism, industrilization, imperialism, and the emergence of planned economics.

EC625 Industrial Relations

A survey of the problems, strategies and policies of management and unions in conflict situations and in harmonizing labor-management relations. Labor legislation, collective bargaining and alternative strategies, productivity and other problem areas in labor-management relations are examined.

EC629 Public Policies Toward Business

A survey of the economic aspects of government and business relations. Emphasizes the concept of public control over certain types of business and certain forms of business activity. Combination movements, pricing procedures, anti-trust laws and agencies enforcing them, regulation of transportation and public utilities, rate-making for transport, pricing public utility services, consumer protection, and social responsibility.

Prerequisite: EC 603-604

EC630 Structure of American Industry

An examination of several major U.S. industries such as automobiles, steel, petroleum, defense, and agriculture. Some contemporary problems are analyzed. A study of the powerful economic forces acting on these industries and how firms react to these forces.

EC635 Comparative Economic Systems

The study of Capitalism, Socialism, Communism and other economic systems will be examined with respect to their theoretical foundations and practical applications, including the interrelationship between economic, political and social institutions.

Prerequisite: EC 603-604

EC641 International Economics

A study of the basic theory and major institutions of international economic relations. Examines critically the techniques and background of protectionism and free trade, and the analysis of customs unions, and price and exchange rate changes. The theory of comparative advantage, the gains from trade and the terms of trade. The balance of payments and national income. Capital movements and economic growth. The evolution of the world economy and international economic institutions. Effects of growth on trade, and trade on growth. Monopolistic practices in international trade. The international monetary system and international monetary reforms.

Prerequisite: EC 603-604

EC645 Seminar in Macroeconomic Policy

The impact of fiscal and monetary policy upon employment, output and prices. An analysis of past and current economic controls and their impact upon the economy.

Prerequisite: EC 603-604

EC653 Econometrics

A presentation of the important statistical concepts used in econometrics. Topics covered are regression theory, multiple regression, regression extensions, correlation, serial correlation, correlated regressor and error, the identification problem, selected estimating techniques.

Prerequisites: EC 603-604
QA 604-605, or permission of the instructor

EC658 Transportation Economics

A study of the principal economic problems arising in connection with the development and regulation of railroads and other modes of transport.

Prerequisite: EC 603-604

EC660 Economic Development of Japan

A study in the modernization and economic growth of modern Japan since the Meiji Restoration (1869). Topics include the role of government and planning, and of foreign trade, investment, and technology; resource allocation, economic organization, capital formation, agricultural policies, population growth, and social change.

Prerequisite: EC 603-604

EC665 Urban and Regional Economic Development

Structure of the urban and regional economy; goals processes, problems and policy in urban and regional economic development.

Prerequisite: EC 603-604

EC670 Economics of Crime

Topics include the economic costs of crime; the costs of preventing crime; the impact of white collar crime on American society.

Prerequisite: EC 603-604

EC687 Collective Bargaining

Emphasis on the negotiating process. The labor contract as it involves wages, worker security, management authority, and handling of grievances arising during the life of the contract.

Prerequisite: EC 625

EC690 Research Project

Independent study under the supervision of an advisor.

Prerequisite: 15 graduate hours or permission of the instructor.

EC691 Labor Legislation

Considers the legal status of unions as set forth in state and federal legislation, and court decisions. Reviews recent NLRB rulings. Protective legislation dealing with wages, hours, child labor, and accident and unemployment compensation.

Prerequisite: EC 625

EC695 Readings in Economics

EC698 Thesis

Periodic meetings and discussions of the individual student's progress in the preparation of a thesis.

Prerequisite: 15 graduate hours

Department of Electrical Engineering

EE601 Engineering Analysis I

Application of multidimensional linear vector space concepts to the analysis and synthesis of engineering systems. Topics include matrices, linear transformations, orthogonality, function spaces, and the resolutions of signals.

EE602 Engineering Analysis II

Applications of the methods of complex variables and their analytic functions to engineering systems. Topics include analytic function theory, conformal mapping, transform methods and transfer functions.

EE603 Discrete & Continuous Systems I

Discrete and continuous linear system models. State variable representation and transfer function representation. Feedback control systems, stability performance and design criteria. State variable and compensation synthesis. Non linear systems, describing functions and phase plane techniques. Stability methods of Liapunov.

Prerequisite: EE601

EE604 Discrete & Continuous Systems II

Prerequisite: EE603

EE605 Modern Control Systems

Advanced topics in control systems. May include optimal control, dynamic programming, variational approaches, adaptive control, sampled data systems, signal modulated systems, random signal methods.

Prerequisite: EE604

EE608 Computer Aided Design

Numerical algorithms for engineering systems analysis. The design problem and performance measures. Optimization of networks and filters. Parameter sensitivities. Device modeling and equivalent circuits.

Prerequisite: EE601

EE615 Computer Logic and Intelligence

Introduction to logic elements and to their application in digital networks for processing numerical data. The course will deal with analysis and design techniques and will include the following topics: logic variables, switching functions, optimal realizations, Karnaugh maps and tabular procedures, multivariable systems. Detailed consideration of coding, parity bit redundancy, and error detecting and correcting schemes will be presented. Design examples will include logic circuits for addition, multiplication, counting, parity generation and detection.

Prerequisites: IE603 (or equivalent)

EE630 Electronic Instrumentation I

Design of modern electronic instrumentation. Circuit and system examples, critical evaluation and design techniques. Emphasis on practical applications including design theory and the circuit techniques used in linear integrated devices. Variety of electronic instrumentation including computer interfaces, signal conditioners, waveform generators and shapers, filters, V/F, A/D, D/A converters and other special purpose circuits.

Prerequisite: Permission of Instructor

EE631 Electronic Instrumentation II

Prerequisite: EE630

EE634 Digital Signal Processing I

A study of the theories of digital signal processing and their applications. Topics include discrete time signals, Z transform, the discrete Fourier Transform, the FFT, digital filter design techniques, homomorphic signal processing, and various applications of digital signal processing.

Prerequisite: EE603

EE635 Digital Signal Processing II

Prerequisite: EE634

EE640 Computer Engineering I

A study of the structure and organization of PDP11-10 computer. Operating system peripheral devices, addressing memory, assembler instruction set, programmed requests, real-time soft ware modules. Assembler language programming.

EE641 Computer Engineering II

Applications of computers to physical systems for monitor control functions. Interfacing using hardware modules. Case studies may include synchronous motor transient studies, shock wave phenomena, dynamic chemical reaction monitoring and control, signal processing, sampled data control systems. Students must complete a project.

Prerequisite: EE640

EE645 Power Systems Engineering I

Concepts and methods of analysis and design of modern power systems will be treated. This will include the network representation of power systems, matrix methods symetrical components, and the use of the computer in the solution of problems such as short circuit fault calculations, load flow study, economic load despatching and stability. Other topics may be included such as protection, relaying, transmission system design.

Prerequisite: Permission of Instructor

EE646 Power Systems Engineering II

Prerequisite: EE645

EE650 Random Signal Analysis

A study of the theory of random signals and processes. Topics include a review of probability, random signals, auto and cross correlation, power spectral density, spectral analysis of random signals, signal detection and estimation in noise.

EE670 Microprocessors — Theory & Applications

A study of the techniques and methods of designing digital systems using a central processor unit and a programmable read only memory. Microcomputer assembly language, operating systems, input/output devices, programmable read only memories and interfacing. Students must complete a project.

Prerequisite: EE640

EE680 Special Topics — Electrical Engineering

A study of selected topics of particular interest to students and instructor. Course may be taken more than once.

Prerequisite: Permission of Instructor

EE695 Independent Study I

A planned program of individual study or research under the supervision of a faculty member.

Prerequisite: Permission of Instructor

EE696 Independent Study II

Prerequisite: EE695

EE698 Thesis I

Individual student project under supervision of faculty advisor. Written and oral report required. Student must enroll in 6 credits of thesis.

Prerequisite: Completion of 15 credits of graduate work

EE699 Thesis II

Continuation of Thesis I.

Department of Finance

FI615 Finance

The investment, financing, and valuation of business firms. Topics include: discounted cash flow, return on investment, investment decisions under uncertainty, long and short term sources of funds, optimal financial structure, cost of capital, dividend policy, expansion, merger, and failure and reorganization.

Prerequisites: EC 603-604
QA 604
A 600 or equivalent

FI617 Financial Institutions and Capital Markets

This course stresses the relationship between the financial system and the level, growth, and stability of aggregate economic activity. Analyzes the institutional and theoretical structure of monetary change and the manner in which financial institutions and markets transmit and influence the impact of monetary policy. Special attention to the role of nonmonetary financial intermediaries, the structure and regulation of capital markets, and the functions of market yields as the price mechanism that allocates saving to various categories of economic investments.

Prerequisites: EC 603-604
QA 604

FI619 Monetary and Central Banking Policy

The impact of monetary change upon employment, output, and prices; and the formulation and execution of Federal Reserve Policy designed to regulate money, credit, and interest rates.

Prerequisites: EC 603-604
QA 604

FI645 Corporate Financial Theory

An analysis of the theoretical structure supporting optimum financial decision-making by the business firm. Emphasis is placed upon the determination of the combination of investment, financing, and dividend decisions that maximizes the valuation of the firm within a security market context.

Prerequisites: FI 615
FI 651

FI649 Security Analysis

An analysis of the determinants of valuation for fixed income securities, common stocks, convertible securities and common stock warrants. Emphasis is placed upon the information and techniques relevant to security valuation and selection and the structure and workings of the securities markets.

Prerequisite: FI 651

FI651 Portfolio Management and Capital Market Analysis

Considers the theoretical structure for the procedures (security analysis, portfolio analysis and portfolio selection) which constitute the process of portfolio management, as well as their limitations in practice. Additional attention is placed upon the logical implications of portfolio analysis for capital market theory.

Prerequisites: EC 603-604
QA 604
A 600 (or equivalent)

FI655 Commodity Market Analysis

A conceptual and operational examination of the markets in which commodities are traded, the participants and major exchanges including an analysis of the major commodities traded and the factors influencing their prices.

Prerequisites: EC 603-604
QA 604

FI661 Real Estate: Principles and Practices

Real estate from the investor's point of view. Impact of taxation on real estate investments. Emphasis on commercial land use through the use of case studies and problems.

Prerequisites: EC 603-604
QA 604

FI690 Research Project

Independent study under the supervision of an advisor.

Prerequisite: 15 graduate hours or permission of the instructor

FI698 Thesis

Periodic meetings and discussions of the individual student's progress in the preparation of a thesis.

Prerequisite: 15 graduate hours

HM610 Seminar in Hotel Management Theory

Detailed analysis of current developments in the hospitality and travel industries.

HM620 Financial Management

Utilization of mathematical techniques applicable to solving managerial and technical problems involving investment decisions, real estate site selection, property evaluation, and financial analysis.

HM625 Supervisory Analysis

An incident approach is used to provide a cross section of small business situations that have faced hospitality oriented management. Emphasis is given to particular situations involving leadership, organization, communications, ethical behavior, and social responsibilities.

HM630 Personnel Relations Management

Topics include organizational behavior, personnel selection, placement, supervision, job evaluation, wage and salary administration, motivation, and union-management relations. Case studies and role playing are integral parts of the course.

HM640 Executive Cuisine Development

An advanced course which covers current methods and principles of food preparation, variety, and garnishments. Emphasis placed on evaluation and preparation. Topics include Haute Cuisine, Convenience, and International. Demonstration only.

HM655 Small Business Enterprise

Cases have been selected to stimulate the student in opportunities, risks and ingredients necessary for success in a hospitality small business entrepreneurial career. Through case discussions on starting or purchasing companies, students obtain practice in dealing with such matters as finding a suitable opportunity, appraising profit potential, determining an acceptable purchase price, negotiating terms, and raising capital.

HM690 Research Project

Independent study under the supervision of an advisor.

HM698 Thesis

Periodic meetings and discussion of the individual student's progress in the preparation of a thesis.

Prerequisite: 15 graduate hours

IB643 International Business Operations

A summary of the economic, foreign environment and instructional concepts and constraints encountered by international business. How they apply to decisions by managers of business operations and makers of official policy.

Prerequisite: EC 603-604

IB644 Import and Export Business

A managerial approach to international marketing; emphasis on controllable and uncontrollable variables effecting marketing strategies; evaluation of foreign suppliers; methods of financing imports and exports; and, documentation for import and export marketing.

Prerequisites: MK 609 Marketing
IB 643 International Bus. Operations

IB645 Structure of World Markets

In this course an intensive study is made of Asia, Western Europe, Eastern Europe, and South America as a complementary trade region for the United States firm. The area is surveyed as a present and potential market as well as an import source. Consideration is given to the historical and racial background of the people, their political, social and educational development; the resources and economic development of the countries in the area; and, business practices unique to the area and its countries.

Prerequisites: MK 609 Marketing
IB 643 International Bus. Operations

IB651 Comparative Marketing

A systematic study of the national and regional basis of socioeconomic conditions and of distributive business activities. The analysis of international similarities and differences in marketing functions, structures, processes, and actors, as related to the physical, economic, political, social, and cultural environments. The dynamic changes underway in marketing systems are also considered.

Prerequisites: MK 609 Marketing
IB 643 International Bus. Operations or Permission of instructor

IB652 Multinational Business Operations

Managerial problems and strategies in foreign operations; structuring international operations through acquisition, licensing, or joint venture; the assessment of local competition; the impact of foreign environments; and, legal, political, and cultural problems facing the multinational firm in its relationship with its host countries.

Prerequisites: MK 609 Marketing
IB 643 International Bus. Operations or Permission of instructor

IB698 Thesis

Periodic meetings and discussions of the individual students' progress in the preparation of a thesis.

Prerequisite: 15 graduate hours

Department of Industrial Engineering

IE601 Introduction to Operations Research/Management Science

Introduction to the techniques and philosophies of management science and operations research. Topics include linear programming, inventory analysis, queuing theory, dynamic programming, decision analysis, and other management techniques.

Prerequisites: M610 or differential calculus, and IE607 or QA604 or equivalent

IE602 Quality Analysis

Concepts of quality control and statistical quality analysis. Sampling techniques and decision processes.

Prerequisite: IE 607

IE603C Introduction to Digital Computers: COBOL

An introduction to the basic elements of computer science, including computer hardware, software, information and data processing. Programming concepts are introduced using COBOL, a common business-oriented language. A student who has taken IE 603F will not be given credit for IE 603C.

Laboratory Fee: $10.00

IE603F Introduction to Digital Computers: FORTRAN

An introduction to the basic elements of computer science, including computer hardware, software, information and data processing. Programming concepts are introduced using FORTRAN, a common language that is well suited for scientific and technical work. A student who has taken IE 603C will not be given credit for IE 603F.

Laboratory Fee: $10.00

IE604 Management Systems

Techniques of industrial and governmental systems management, including systems analysis, cost-benefit analysis, organizational theory, and scheduling and planning techniques.

IE605 Advanced Business Programming

Advanced programming in COBOL or other business-oriented language within an applied business systems context.

Prerequisites: IE 603C or proficiency in language similar to COBOL

Laboratory Fee: $10.00

IE606 Advanced Technical Programming

Advanced programming in FORTRAN or other technically-oriented language with emphasis on scientific and technical applications.

Prerequisites: IE 603F or proficiency in a language similar to FORTRAN
Laboratory Fee: $10.00

IE607 Probability Theory

Probability of events. Random variables and expectations; discrete and continuous distributions; important standard distributions and applications; moment generating functions; central limit theorem.

Prerequisites: M610 or equivalent

IE610 Computer Systems Design

Techniques for designing, installing, and operating computer systems and their peripheral equipment. Concepts of decisions with respect to compiler and hardware selection. Development of operating procedures, form design, systems charting, and documentation.

Prerequisites: IE 603 and IE 614

IE611 Budgeting and Control

An analytical approach as applied to the principles and policies of operational budgeting and control of expense and capital investments. Includes forecasting techniques, development of totally integrated systems with traditional financial statements and controls from top management to first line supervision.

Prerequisite: A 600

IE612 Managerial Interactions I

An interdisciplinary systems approach to human behavior in organizations, with emphasis on the impact of industrial engineering methods on organizational performance. The first course will deal with individual motivation and face-to-face interaction in managerial roles: the second concentrates on organizational development, job enrichment, and modern work attitudes.

IE613 Managerial Interactions II

Prerequisite: IE 612

IE614 Data Information Systems

Introduction to automated information systems planning and operations and their impact on management decision-making, control functions, and communication capabilities. An overview of concepts and procedures with applications in urban environments, large organizations, and governmental agencies. Selected case studies are analyzed.

Prerequisite: IE 603 or equivalent

IE615 Transportation and Distribution

Introduction to transportation science with emphasis on physical distribution problems. Survey of operations research models and optimization strategies and their roles in transportation systems management.

Prerequisite: IE 601

IE619 Enterprise Design and Evaluation

An analysis of the principles and methods used in estimating the probable economic characteristics of proposed enterprises. The student is required to formulate a proposed enterprise, including the technical, financial, and organizational requirements.

Prerequisite: IE 601

IE621 Linear Programming

Thorough coverage of the techniques and applications of linear programming: a powerful operations research tool for optimal allocation of limited resources in linear systems.

Prerequisites: M 610 or equivalent, and IE 601 or equivalent

IE622 Queuing Theory

Elements of queuing theory including finite and infinite cases. Single server and multiple server parallel channels, series queues, and special cases are analyzed. Experimental methods, including simulation, are presented in the context of industrial environments.

Prerequisites: IE 601 and IE 607

IE623 Decision Analysis

Decision theory, game theory, and stochastic decision processes. Benefit-cost analyses under uncertainty.

Prerequisites: QA 605 or IE 607

IE631 Production Engineering

An analysis and practical application of engineering activity that results in the transformation of natural resources into a finished product.

Prerequisites: IE 601 and IE 602

IE641 Quality Control Economics

An economic managerial analysis of statistical quality control sampling and control chart systems with application to accepted and hybrid systems.

Prerequisites: IE 602 and IE 607 or QA 604

IE643 Reliability and Maintainability

The basic theory and methodology of reliability and maintainability, including application of discrete and continuous distribution and statistical designs. Reliability, estimation, structure models, and growth models.

Prerequisites: IE 602 and IE 607 or QA 604

IE651 Human Engineering I

A broad coverage of the physiological, psychological, and sociological aspects of man and the society in which he lives and works. Special topics include human factors, motivation, group dynamics, and ekistics.

IE652 Human Engineering II

Prerequisite: IE 651

IE655 Value Engineering

Consideration of value analysis from the point of view of design, manufacturability, procurement, installation, and maintainability in order to optimize value in products.

IE670 Current Topics in Computer and Information Science

An examination of new developments or current practices in computer and information science. A topic will be selected for thorough study; possible subject areas include data structures, recent hardware or software advances, specialized applications.

Prerequisites: IE 601 and IE 603 or permission of instructor

IE671 Current Topics In Operations Research

An examination of new developments or current practices in operations research. A topic will be selected for thorough study; possible subject areas include non-linear programming, network theory, scheduling techniques, specialized applications. Content may vary from semester to semester.

Prerequisites: IE 601 and IE 607 or permission of instructor

IE672 Current Topics in Industrial Engineering

An examination of new developments or current practices in industrial engineering. A topic will be selected for thorough study — possible subject areas include reliability, production engineering, human factors, specialized applications. Content may vary from semester to semester.

Prerequisites: IE 601 or permission of instructor

IE681 System Simulation

A study of the behavior of systems using computer simulation models of their organizational structure and decision criteria.

Prerequisites: IE 603F and IE 601 or equivalent
Laboratory Fee: $10.00

IE682 Compiler Design

Design and operation of assemblers and macro processors. Introduction to compiler design. Metalanguage. Lexical and syntactic analysis. Interpretative systems Control of translation, loading, and execution. Relocating loaders and overlay generation. Symbolic coding systems.

Prerequisites: IE 605 or IE 606 or permission of the instructor

IE683 Systems Analysis

Techniques and philosophies defining the concept of systems analysis are presented in detail and illustrated with large scale case studies. Diverse systems are analyzed covering the social, urban, industrial, and military spheres. Techniques presented include utility theory, decision analysis, and technological forecasting.

Prerequisites: IE 601 or QA 605

IE684 Multiprogramming Systems

Topics in the areas of operating systems and computer architecture. Multiprogramming and multiprocessor systems. Dynamic storage allocation and virtual memory systems. Time-sharing systems. On-line, real-time systems.

Prerequisites: IE 605 or IE 606 or permission of the instructor

IE685 Theory of Optimization

Nonlinear and dynamic programming with special reference to computer analysis of optimization problems.

Prerequisites: Calculus and IE 603F or equivalent

IE686 Inventory Analysis

Inventory theory and practical applications in operating inventory systems. Model construction, optimization, and computer simulation.

Prerequisites: IE 601 and IE 607 or QA 605

IE688 Design of Experiments

Inferential statistical designs, including basic statistical tests and analysis of variance.

Prerequisite: Three credit hours of statistics.

IE689 Seminar in Descriptive Statistics

Satistical theories and applications of correlation analysis, multiple linear regression, nonlinear regression, and analysis of covariance.

Prerequisite: Three credit hours of statistics.

IE695 Special Studies

Independent study under the guidance of an advisor into an area designated by the program coordinator.

Prerequisite: Only by permission of program coordinator

IE698 Seminar Project

Independent study under the guidance of an advisor into an area of mutual interest, such study terminating in a technical report of academic merit. Research may constitute a survey of a technical area in industrial engineering, operations research, or computer science, or may involve the solution of an actual or hypothetical technical problem.

Prerequisites: Fifteen credit hours and permission of program coordinator

Department of Business Law

LA673 Business Law I: Contracts and Sales

Survey of the legal aspects of contracts and the results of contractual obligations. Legal problems stemming from the distribution of goods; generally the rights and duties of buyers and sellers and the remedies available to them.

Prerequisites: EC 603-604
QA 604

LA674 Busines Law II: Business Organizations and Negotiable Instruments

Basic introduction to problems of formation and operation of legal groups and general legal survey of the role of agency, partnerships and corporations and other complex entities in modern society.

Prerequisites: EC 603-604
QA 604

Department of Mathematics

M610 Fundamentals of Calculus and Linear Algebra

Review of algebra. Topics from calculus, including differentiation and integration methods, infinite series, and Taylor series. Linear algebra, systems of linear equations, and matrix methods.

Prerequisite: M 115 or equivalent

M620 Numerical Analysis

Algorithms for obtaining numerical solutions on computers; topics include: solution of nonlinear equations by iterative methods, matrix inversion, evaluation of determinants, and solution of systems of linear equations by direct and iterative methods, numerical integration, differentiation, and solution of differential equations by finite difference methods.

Prerequisites: 9 credit hours of calculus and programming ability in FORTRAN

M624 Applied Mathematics

Topics in applied mathematics including ordinary and partial differential equations, linear analysis and boundary value problems.

Department of Mechanical Engineering

ME610 Mechanics I

Kinematics and Dynamics of particles and systems of particles. Lagrange's equations. Hamilton's principles and canomical transformation theory. The inertia tensor and rigid body motion. Introductory aspects of the mechanics of continua.

Prerequisite: EE601 or Permission of the instructor

ME611 Mechanics II

Prerequisite: ME 610

ME615 Theory of Elasticity I

Cartesion tensor notation, integral theorems, orthogonal curvilinear coordinates. Stress tensor, dynamical conservation equations, isotropy and anisotropy. Boussinesq-Popkovitch potentials. Wave equations. Propagation and refraction of waves. Vibrations.

Prerequisite: EE 601

ME616 Theory of Elasticity II

Prerequisite: ME 615

ME620 Classical Thermodynamics I

Phenomenological equilibrium and non-equilibrium thermodynamics. Formulation and application of fundamental laws and concepts, chemical thermodynamics.

Prerequisite: EE 601 or Permission of the instructor

ME621 Classical Thermodynamics II

Prerequisite: ME 620

ME622 Statistical Thermodynamics

Development of methods of statistical thermodynamics within the framework of the molecular theory of matter. Presentation of the role of spectra and intermolecular forces in the interpretation of thermodynamic properties of ideal systems, gases, solids and plasmas.

Prerequisite: ME 621

ME625 Mechanics of Continua I

Tensor analysis, the stress vector and the stress tensor, kinematics of deformation, material derivative, fundamental laws of continuum mechanics, conservation theorems, constitutive laws, and representative applications.

Prerequisite: EE 601 or Permission of the instructor

ME626 Mechanics of Continua II

Prerequisite: ME 625

ME630 Advanced Compressible Fluid Flow I

Properties of gases at high temperatures. Gas flows involving ionization and chemical reactions. High speed and non steady flows. Plasma flows.

Prerequisites: ME 625, ME 626

ME631 Advanced Compressible Fluid Flow II

Prerequisite: ME 630

ME632 Advanced Heat Transfer

Review of the basic concepts of conduction and radiation, detailed treatment of laminer, turbulent, free and forced convectional flows. Computational projects.

Prerequisite: ME 621

ME635 Advanced Turbomachinery

Design and analysis considerations of modern turbomachinery. Projects requiring computer aided analysis and design based on recently published information.

Prerequisite: ME 630

ME640 Combustion

Introductory statistical thermodynamics and physical properties of gases, chemical reactions in gases, combustion phenomena, aerodynamics of flames, and detonation phenomena. Design considerations of combustion chambers and burners and associated instabilities.

Prerequisite: ME 631

ME645 Computational Fluid Dynamics and Heat Transfer

Current methods of computer solutions of the conservation equations of fluid dynamics. Viscous, uncompressible, compressible and shocked flows. Real gas equations of state. Computer projects.

Prerequisites: ME 631 (M 620 concurrently)

ME660 Advanced Design Philosophies

Open to advanced students. Seminar series on state-of-the- art techniques including objectives and philosophies of design. Guest lectures by recognized industrial experts. Complete design project required of all students.

ME680 Special Topics—Mechanical Engineering

A study of selected topics of particular interest to students and instructor. Course may be taken more than once.

Prerequisite: Permission of the instructor

ME695 Special Studies

Independent study under the guidance of an advisor into an area designated by the program coordinator.

Prerequisite: Permission of program coordinator

ME698 Thesis I

Periodic meetings and discussions of the individual student's progress in the preparation of a thesis.

Prerequisite: 15 graduate hours

ME699 Thesis II

Prerequisite: ME 698

MG622 Business Analysis

Current topics in supervision, management, personnel relations, and related problem areas confronted by the corporate manager.

Prerequisites: EC 603-604
QA 604-605

MG625 Systems Techniques in Business Administration

An integrated study of the techniques for solving administrative problems, including the analysis and improvement of organization structures, office procedures, forms design, records management, reports and equipment standards. The conduct of a comprehensive systems survey using these techniques is explored in depth as are flow charting and the preparation of manuals.

MG633 Managerial Economics

A study of the application of the major tools of economic analysis to the problems encountered by management in the organization of the firm. Topics include the theory and measurement of consumer demand, measurement and control of costs, the effects of public policy upon managerial decisions, and pricing techniques and the allocation of capital within the firm.

Prerequisites: EC 603-604
QA 604-605

MG637 Management

A survey of the literature of management theory. Based on a wide range of independent reading, the student is provided the opportunity to analyze and assess the contribution by major writers in the field of management theory.

MG650 Venture Management

Deals with the establishment of a new business venture, covering such topics as site development, market analysis, staffing, inventory control, personnel relations, and funding.

Prerequisites: A 621, FI 615, MG 637, MK 609 or permission of the instructor

MG653 Seminar in Managerial Economics

Application of Managerial Economics to selected problems encountered in management of the corporation such as evaluation of costs, returns on alternative investment policies and pricing plans. Problems of implementation covered through analysis of broad range of cases where uncertainty has major bearing on managerial decisions. Application and use of economic tools such as forecasting, capital investment analysis, and risk analysis are part of this structure.

Prerequisite: MG 633 or permission of the instructor

MG660 Comparative Management

The main focus of this course is to develop an understanding of managerial practices in different countries. A conceptual framework is developed for the analysis of interaction between managerial processes and cultural factors as they affect the management of enterprises in various countries.

Prerequisite: MG 637

MG661 Development of Management Thought

Study of the literature from various disciplines in order to determine the thinking and practices of leaders of organizations, past and present. The historical perspective of management thought will be developed The contributions of religion, philosophy, economics, sociology and psychology to management thought and practice will be examined. Emphasis on pioneering works in the management of organizations. Case studies of the thinking and practices of famous leaders of American business enterprises.

Prerequisite: MG 637

MG662 Organization Theory

A survey of the literature on theories of organization with emphasis on contemporary theories. Application of the theories to management and organizational problems will be attempted. Difficulties arising between theory and practice will be examined.

Prerequisite: MG 637

MG663 Leadership in Organizations

Examination of theories and research findings from the behavioral sciences that are relevant to leadership in organizations. The role of the leader within the organization; the prerequisites for and knowledge and practices required for successful leadership will be studied. Programs for the development of leaders will be explored.

Prerequisite: MG 637

MG664 Organizational Effectiveness

Identification of the criteria necessary for developing and maintaining effective organizations. A study of the concepts that may be utilized in the management of these criteria. Approaches that may be utilized in developing managers in the use of these concepts will be examined and applied to problem situations through cases and role-playing.

Prerequisite: MG 637

MG669 Business Policy and Strategy

Management policies and strategies for the complex organization operating in a dynamic environment are examined from the viewpoint of the top-level executives of the organization. Develops analytical frameworks for the management of the numerous elements involved in assuring the fulfillment of the goals of the total organization. Integrates the student's general business knowledge with the required courses in the MBA program. Emphasis is placed on the development of oral and written skills by the examination and discussion of cases.

Prerequisites: MG 637 and 3 credit hours of 600 level MG coursework

MG680 Current Topics in Business Administration

An integrative course that will examine the role of business in society and relate the business firm to its social, political, legal, and economic environment. While the exact content of this seminar is expected to vary from semester to semester in accordance with the varied academic interests and professional backgrounds of different faculty handling the course, the basic theme is the role of the business firm as the "keeper" of the market mechanism and the means for organizing resources in the economy.

Prerequisite: 15 graduate hours or permission of the instructor.

MG685 Research Methods in Business Administration

Designed to familiarize the administrator with the tools and potentialities of social research and to assist him in the presentation, interpretation, and application of research data.

MG690 Research Project

Independent study under the supervision of an advisor.

Prerequisite: 15 graduate hours or permission of the instructor

MG695 Readings in Management

MG698 Thesis

Periodic meetings and discussions of the individual student's progress in the preparation of a thesis.

Prerequisite: 15 graduate hours

Department of Marketing

MK609 Marketing

An intensive study of modern marketing methods and concepts. Includes a review of marketing fundamentals, a study of the decision-making problems encountered by the marketing executive, and the relation of marketing to environmental forces.

Prerequisites: EC 603-604

MK616 Analysis of Buyer Behavior

An examination of the principal comprehensive household and organizational buyer behavior models and the behavioral science theories upon which such applied models are based. The buyer is analyzed at the individual level, at the social level, and at the organizational level.

Prerequisite: MK 609

MK639 Marketing Research and Information Systems

A managerial approach to marketing information flow, including recognition of information needs and an overview of marketing research as part of an information system. Special attention to evaluation of research design and measurement methods, effective utilization of research output, and problems encountered in establishing a marketing information system.

Prerequisites: MK 609
QA 605

MK641 Marketing Management

The treatment of the basic decision problems of marketing management in terms of a conceptual framework for analysis. Consideration of the role played by human judgments and the mathematical tools available to aid in these judgments in a number of marketing areas, notably market analysis, pricing decisions, advertising decisions, promotional decisions, and selection of distribution channels.

Prerequisite: MK 609

MK643 Product Management

The search for new product ideas and their evaluation; the organization structure necessary to the development and introduction of new products and the management of a product line; the commercial aspects of product design, packaging, labeling, and branding; considerations involved in making product deletion decisions; and, the social and economic effects of managing product innovation.

Prerequisite: MK 609

MK644 Consumerism

An analysis of the evolution of the consumerist movement; how and why it has developed; government agencies dealing with consumer problems; the impact of various market structures on the consumer; the impact of consumer oriented legislation on marketing strategies; and the responsibility of business to the consumer and to society.

Prerequisite: MK 609

MK645 Distribution Strategy

Analysis of channel strategies; theory and economic justification of distribution channels; direct and indirect methods of control; behavioral states of channel members; costing the channel; and management of changes in distribution.

Prerequisite: MK 609

MK680 Marketing Workshop

This course is centered around a structural model of a business firm. The major objective is to provide the student with an opportunity to develop managerial insights and skills in dealing with marketing problems in a competitive environment. Each of the participants is grouped into decision making units (companies) and assumes the role of marketing executives operating a business firm. These executives will be responsible for planning, organizing, staffing, directing and controlling their firm's resources.

MK690 Research Project

Independent study under the supervision of an advisor.

Prerequisite: 15 graduate hours and permission of the instructor

MK695 Readings in Marketing

MK698 Thesis

Periodic meetings and discussions of the individual student's progress in the preparation of a thesis.

Prerequisite: 15 graduate hours

Department of Psychology

P605 Survey of Community Psychology

An examination of historical roots and current conceptions. A social-problems approach to psychological dysfunction. Changing professional roles. Community organization and human service delivery; strategies of intervention and community change.

P606 Seminar in Organizational/Industrial Psychology

An examination of the professional psychologist at work in organizations. Emphasis on measurement methods, prediction, validation, selection, training, performance appraisal. Practitioners in businesses, industry research organizations, and government will provide insights into the application of psychological principles and methods.

Prerequisite: P619

P607 Special Problems in Community Psychology

Problems of particular relevance to the Connecticut area community consultation and education. Human service issues in this geographical area.

P609 Research Methods

Introduction to analytic concepts pertinent to sampling techniques, research design, variable control and criterion definition. Basic problems of measurement, research paradigms, sources of error in research interpretation, problems of variable identification and control, and consideration of the logic of inference.

Field Experience and Practicum Seminars

An apprenticeship or on-the-job role in an ongoing program or center. Emphasis on developing conceptualizations and insights as a result of involvement in the apprenticeship. Placement at a field site for 8-10 hours per week. Weekly class meetings serve two purposes: present specific theoretical material and research findings appropriate to each seminar; and allow students to discuss their field training experiences.

P611 Field Experience & Practicum Seminar I: The Dyadic Relationship

Content focuses upon one-to-one relationships in community psychology. See general description, previous page.

P612 Field Experience & Practicum Seminar II: Models of Consultation

Content focuses upon community consultation. See general description, previous page.

P613 Field Experience & Practicum Seminar III: Systems Intervention

Content focuses upon intervention into and change in community systems. See general description, previous page.

P619 Organizational Behavior

Analysis of various theories of business and managerial behavior emphasizing the business organization and its internal processes. Psychological factors in business and industry, including motivation, incentives, and conflict. A study of research finding relevant to an understanding and prediction of human behavior in organization.

P620 Industrial Psychology

Psychological theories and research applied to business and other organizations. Problems and methods in selection and placement, training, performance appraisal, motivation, leadership, etc.

P621 Behavior Modification

Theory and research in behavior modification. Aversive learning, desensitization, operant conditioning. Applications in clinical and non-clinical settings.

P623 Psychology of the Small Group

Analyses of the behavior and interaction of people in mutual gratification groups, committees, work groups, and clubs.

P625 Advanced Psychology of Human Development

In depth exploration of development through the life cycle and the developmental impact of family, neighborhood, schools, work, class, race, sex, etc.; Key theoretical concepts; Research findings; Community intervention.

P627 Attitude and Opinion Measurement

Examination of modern methods of attitude and opinion measurement. Scale, schedule, and interview formats. Respondent sets. Consideration of sampling problems.

Prerequisite: P 609

P628 The Interview

The interview as a tool for information-gathering, diagnosis, mutual decision making, and behavior change. Use of role-play provides the student with insights into nuances of interpersonal relationships. Applications to selection, counseling, and other situations.

P629 Introduction to Counseling

The roles of the client and the counselor in the counseling relation. Examination of underlying assumptions.

P630 Psychology of Personality

Major personality theories and their implications. Examination of the psychological and organic factors involved in personality development and expression.

P631 Social Psychology

Current problems in social psychology. Attitude scale construction, attitude change, language as a social phenomena, patterns of culture, social class, groups, person perception, and conformity.

P632 Group Dynamics and Group Treatment

An exploration of the emerging area of Group Dynamics. The structure of groups, their development, process interaction analysis, formal and informal groups, group psychotherapy and sensitivity training.

P633 Problems of Drug Abuse

Discussion of selected issues and current problems in drug abuse.

P634 Personality Assessment

A critical survey of the theories and issues of personality assessment. Topics include intelligence, achievement, and ability assessment. Personality tests and ethical questions associated with psychological testing.

P635 Assessment of Human Performance with Standardized Tests

Theories, assumptions, and constraints underlying construction and application of standardized tests employed in clinical, educational, governmental, and industrial settings. Emphasis on selection of appropriate standardized tests for specific applications.

Prerequisite: P 609

P636 Abnormal Psychology

Etiological factors in psychopathology dynamics and classification of neuroses, psychophysiologic conditions, psychoses, personality disorders, organic illness, retardation, and childhood disorders.

P638 Psychology of Communication and Opinion Change

Characteristics of the source, the situation, and content of messages, along with other variables influencing attitudinal modification. Cognitive factors and social settings in attitude change.

P640 Industrial Motivation and Morale

The meaning of work; theories of motivation. Stimulus deprivation and expectation of reinforcement; job satisfaction and motivation; pay as an incentive; interventions to increase work motivation. Case studies.

Prerequisite: P 619

P642 Organizational Change and Development

The nature of organization development, intervention by third-party consultation, change in organization structure and role relationships, managerial grid, participation, conformity and deviation.

Prerequisite: P 619

P670 Program Evaluation in Community Psychology

A systematic study of the processes involved in planning, implementing, and evaluating social service programs. The focus is on action research strategies which integrate the entire process from planning and grant application to the evaluation of the program.

Prerequisite: P 609

P672 Psychology of the Middle and Later Years

A comprehensive consideration of the psychological aspects of the aging process. Sensation, perception, cognition, intelligence, problem-solving, memory and sexuality, personality changes. Disengagement, rigidity. Death and its anticipation.

P680 Community Mental Health Philosophy & Concepts

Considerations of the philosophical bases which underlie traditional approaches to mental health. A study of the implied cultural values and attitudes which have determined the locations, the settings, the methods, and the objectives of mental health treatment concepts, programs, and techniques.

P690 Individual Intensive Study

Provides the graduate student with the opportunity to delve more deeply into a particular area of study under faculty supervision.

Prerequisite: Completion of required courses or 24 graduate hours and written approval of chairman

P691 Practicum I

For students already employed in a managerial or supervisory role. A job-related research project is researched and carried out under faculty supervision.

P692 Practicum II

Prerequisite: P 691

P693 Organizational Internship I

For students without experience at the managerial or supervisory level. Under faculty supervision the student engages in field experience in an industrial setting.

P694 Organizational Internship II

Prerequisite: P 693

P698 Thesis I

An empirical study of a problem of the student's interest.

Prerequisite: Completion of all required courses or 24 graduate hours and written approval of chairman

P699 Thesis II

Prerequisite: P 698 and written approval of chairman

Department of Public Administration

PA601 Principles of Public Administration

The development, organization, functions, and problems of national, state, and local administration.

PA602 Public Policy Formulation and Implementation

The relationship between public administration and the formulation of public policies is studied. The implementation of public policies by administrators based on the politics of the administrator is examined in terms of interaction between various group representatives, i.e. the legislators, the politician, the pressure group leaders.

Prerequisite: PA 601

PA603 Resource Administration

Growth of the concept of conserving and developing natural resources and its translation into public policy. Organization of the interrelationships among the principal resources administration agencies; the coordination of resources program, national, state, and local.

PA604 Seminar in Communities and Social Change

Interaction between the community as a social organization and education, police, and welfare institutions within it; special attention to conceptual frameworks and current research or action programs that impact particularly on minority groups.

PA605 The Communication Process

Major emphasis on the role of communication in a democracy and the effects of communication content. Brief treatment of content analysis techniques, person-to-person communication, and barriers to the flow of communication.

PA611 Research Methods in Public Administration

Designed to familiarize the administrator with the tools and potentialities of social research and to assist him in the presentation, interpretation, and application of research data.

PA620 Personnel Administration and Collective Bargaining in the Public Sector

Study of the civil service systems of the United States and the state governments, including a systematic review of the methods of recruitment, promotion, discipline, control, and removal.

Explores the effects on work relationships as a result of collective bargaining statutes which have been adopted by legislatures. Emphasis is placed on Connecticut's collective bargaining statutes.

PA625 Administrative Behavior

The problems faced by an administrator in dealing with interpersonal relationships and human processes. Analysis of individual and group behavior in various governmental and business settings to determine the administrative action for the promotion of desired work performance. Emphasis given to the public sector.

Participation in actual problem situation discussions and case studies.

PA630 Governmental Accounting

A comprehensive survey of the essential principles of governmental accounting, budgeting, cost accounting, and financial reporting. The various operating funds, bonded debt, fixed assets, investments, classification of revenue and expenditures, general property taxes, and interfund relationships.

PA632 Public Finance and Budgeting

State and local expenditure patterns, state and local revenue sources, income taxation at the state and local level, excise taxation, sales taxation, taxation of capital, and the property tax. Emphasis on fiscal and economic aspects of federalism and federal-state fiscal coordination. The role of the budget in the determination of policy, in administrative integration, in control of government operations.

PA633 Financial Administration

Seminar on selected aspects of public financial administration including revenues, accounting, expenditures, public debt, special funds, and auditing.

PA634 Problems of Municipal Management

Study of selected problems of city management, with emphasis on "housekeeping" and line operations.

PA635 Statistics for Public Administrators

Provides a basic theoretical treatment of the nature of statistical analysis and its role in economic research design and procedure.

PA640 Purchasing

Current innovative techniques used in purchasing. Emphasis on warehousing, storage, inventory control, and cooperative purchasing plans.

PA647 Zoning and Land Subdivision Regulation

Ordinance structure and planning theory as expressed in texts of ordinances. Selected court cases.

PA650 Administrative Law

A searching for principles and criteria against which public interest can be balanced with private right in the changing patterns of government, with particular reference to the American System.

PA651 Municipal Corporation

Nature of the municipal corporation embracing creation and dissolution legislative power over such corporations, extent of municipal powers, police power, zoning, power to contract, rights and remedies of creditors, power to issue evidence of indebtedness.

PA660 Urban Planning: Theory and Practice

Explores the concept of physical planning within the urban development framework. The function of planning in its relationship to the environment. Comprehensive planning with its many ramifications involving the various sections of our society. Methods for analyzing problems as well as design methods for problem solving.

PA661 Problems of Metropolitan Areas

Analysis of the problems of government and administration arising from the population patterns and physical and social structures of contemporary metropolitan communities.

PA662 Environmental Design

A non-technical introduction to the physical sciences of ecology and the principle areas of pollution. Industry problems of pollution control and effect of recent legislation will be explored to show how decisions of society affect our environment.

PA665 Systems Analysis in the Municipal Sector

Introduction to the philosophy and techniques of systems analysis and its application to local government. Topics covered include systems definitions, effectiveness and worth measures, systems simulation concepts, and systems redesign for optimal performance.

PA671 Administrative Problems

Exploration of the practical experiences, and problem solving situations in the day-to-day activities of a Municipal Administrator.

PA680 Seminar in Public Administration

Exact material to be covered will be announced.

PA690 Research Project I

Independent study for advanced graduate students on selected problems in public administration.

Prerequisite: 15 graduate hours or permission of the instructor

PA691 Research Project II

Independent study for advanced graduate students on selected problems in public administration.

Prerequisite: Permission of the instructor

PA692 Seminar in Public Opinion

Problems of identification and analysis of public opinion and its impact upon the political process. Problems of data collection and questionnaire construction; categorization of qualitative data, elements of scaling, logic of multivariate analysis; role of comparative and cross-national surveys of public opinion.

PA693 Public Administration Internship

A supervised work experience in a cooperating public service agency related to government. Students must be available for at least 1 day per week.

Prerequisite: 15 graduate hours or permission of the instructor.

PA695 Readings in Public Administration

Prerequisite: 15 graduate hours or permission of the instructor

Department of Physics

PH680 Special Topics—Physics

A study of selected topics of particular interest to students and instructor. Course may be taken more than once.

Prerequisite: Permission of the instructor

PS601 Constitutional Law

A study of the relation of the judicial process and constitutional law to the political process in the United States. Judicial review, federalism, and separation and delegation of powers.

PS602 Civil Liberties and Rights

An analysis of civil liberties, civil rights, due process, and equal protection of the law. An examination of the role of the public official in the protection, denial, or abridgement of the constitutional and legal rights of individuals.

PS603 International Law

A study of the role of international law in the modern state system with particular reference to individuals; territorial jurisdiction; law of the sea, air, and space; and the development of law through international organizations.

PS605 Criminal Law

Scope, purpose, definition, and classification of criminal law. Offenses against the person habitation, and occupancy. Offenses against property and other offenses. Special defenses. Emphasis on the Connecticut penal code.

PS608 The Legislative Process

An analysis of The Legislative Process in the American political system. Stress will be placed on legislative politics in state and local government. Among areas covered will be legislative functions, selection and recruitment of legislative candidates, legislative role orientations, the legislative socialization process, the committee system, the legislators and their constituencies, legislative lobbyists, legislative decision-making, legislative-executive relations and legislative organization and procedures.

PS616 Urban Government and Politics

An examination of the urban political system. Stress will be placed on the political aspects of urban government structures. Among the areas covered will be formal and informal decision-making in urban government, community power structures, types of urban government structures, the politics of inter-government relations and the politics of servicing the urban environment (social services, planning agencies, education, housing, transportation, health, pollution control and ecology, revenue sharing, public safety, neighborhood corporations, etc.)

PS626 Decision-Making in The Political Process

An in-depth study of decision-making in the American system with special emphasis upon the various types of mechanisms, i.e., executive, legislative, judicial, bureaucratic, organizational and military. The influence of intelligence, economic and psychological factors, and social pressures upon decisions and decision-makers will be examined.

PS628 Change and Government

A study of the major processes of change and their consequences for the functioning of government. The course will concentrate upon changes that may occur through violence, evolution, or technology, and which may alter the effective operation of government.

Department of Management Science

QA600 Quantative Analysis **No Credit**

Basic mathematics for solving economic and business problems. Topics include algebra review, equations and inequalities, graphs, exponential and logarithmic functions, an introduction to differential and integral calculus, and matrix algebra.

QA604 Probability and Statistics

An introduction to business statistics. Topics include data analysis and presentation, frequency distributions, probability theory, probability distributions, decision making under uncertainty, sampling and statistical inference, hypothesis testing, t, X, and F tests.

Prerequisites: QA 600 or 9 hours of quantitative courses

QA605 Advanced Statistics

A continuation of QA 604. Topics include simple regression and correlation, multiple regression, analysis of variance, index numbers, time series analysis, seasonal and cyclical variations, and an introduction of forecasting techniques.

Prerequisites: QA 604 or IE 607

QA606 Advanced Management Science

An examination, from a management viewpoint, of the scope of applicability of the methods and models developed in IE 601 Management Science and QA 604-5 Statistics. Topics include parametric programming and economic interpretation of the dual LP problem, marginal costs and revenues, shadow prices, opportunity costs, incremental costs, costs of deviation from optimal solution point(s), and location or construction of desirable alternate optimal solutions.

Prerequisites: IE 601 and QA 604-5

QA607 Forecasting

A survey of some basic techniques and methods used in forecasting at the level of the firm and industry. Topics covered are naive forecasting methods, index numbers, types of economic fluctuations, criteria for fitting estimating lines, Gompertz curve, arithmetic straight line, parabolic trend, logarithmic straight line, seasonal variation, economic indicators, simple correlation and regression, multiple correlation and regression, curvilinear and time series regression.

Prerequisites: QA 605 or permission of the instructor

QA690 Research Project

Independent study under the supervision of an advisor.

Prerequisite: 15 graduate hours or permission of the instructor

QA698 Thesis

Periodic meetings and discussions of the individual student's progress in the preparation of a thesis.

Prerequisite: 15 graduate hours

Department of Science and Biology

SC601 Ecology for Environmental Engineers

An introduction to the biological aspects of environmental problems. Includes discussion of the concepts of bioecology, organisms (micro-organisms, plants, animals) important in pollution control and detection, and human organ systems most affected by pollution.

SC602 Pollutants and the Aquatic Environment

Discusses the interrelationships between the various kinds of pollutants, the morphology of the lake, river, or coastal area, and the effects on the individual organism and the ecosystem as a whole. Treatment methods using organisms are also discussed.

Prerequisite: SC 601

SC603 Air Pollution

An introduction to air movements in the atmosphere and their relation to pollutants; and the effect of air pollution on organisms, with special emphasis on the effects on human beings.

Prerequisite: SC 601

SC607 Characterization and Treatment of Wastes w/Lab

Procedures for identifying and treating potential pollutants produced by domestic sewage, industrial wastes, agriculture, mining, transportation, etc. are discussed.

SC608 Water Quality

Recognition of the organisms and substances of polluted waters; the selection of the appropriate methods of collection, testing, and analyzing the data. The functions and interrelations of governmental agencies in controlling water pollution.

Prerequisites: SC 602 & CH 601

SC610 General Environmental Health

Principles of public health with general emphasis given to environmental factors such as air and water pollutants, legal standards, and preventative measures with the relationship of these to public health.

SC612 Freshwater and Marine Biology

Investigation of relationships between aquatic systems and the organisms living in these systems. Emphasis placed on the manner by which ecological studies of aquatic systems are conducted.

SC621 Microbiology w/Lab

An in depth survey of the groups of microorganisms ranging from the fungi to the viruses. Classification, growth, reproduction, metabolism and major impact on man will be stressed. Current literature and lab techniques pertinent to each group will be utilized.

SC622 Bacteriology w/Lab

Study of the characteristics basic to classification of bacteria. Group by group study of bacteria with emphasis on the major detrimental and beneficial contributions of each group as these affect man and his environment. Students will be expected to survey recent findings in scientific publications.

SC690 Research Project

Independent study under the supervision of an advisor.

Prerequisite: Permission of the instructor.

Department of Sociology

SO601 Minority Group Relations

An interdisciplinary survey of minority groups in the United States with special reference to ethnic, religious, and racial factors that influence interaction.

SO605 Culture and Personality

The effect of different cultures upon personality development. Cultural mores and norms as vehicles of control.

SO607 Delinquency and Juvenile Crime

A general introduction to the field of delinquency and crime, including all aspects of the social and personal matrix out of which these forms of social destructiveness arise.

SO608 Criminology

A survey of the available data and theories relating to the scope and nature of the crime problem, characteristics of the offenders, and the factors that are correlated with crime. Emphasis on social institutions that play significant roles in the increase or decrease of criminal activity as it exists in the United States and other cultures. Environmental and personality factors that influence criminal behavior.

SO609 Comparative Social Organization

A comparative analysis of social and political organizations in cultures of varying complexity.

SO610 Urban Sociology

The problem of urban growth and development. Residential patterns together with the physical development of cities and the redevelopment plans. An examination of the people and their relationships to the environment.

Prerequisite: PA 604

SO620 Sociology of Bureaucracy

A study of some of the classic conceptualizations of Bureaucracy and their relevance for the structure and functioning of American economic and governmental institutions. The course will be designed to give students informational and experiental resources with which they, as planners and managers, can improve their abilities to make effective policy decisions.

SO631 Population Problems and Human Ecology

A sociological approach to social demography with attention on population growth, patterns of distribution of population, and the population changes and trends.

SO635 Sociology of Law

A study of the social origins and consequences of law and legal processes. Emphasis on problems of legal change and the structure and functioning of legal sanctions. Emphasis on law and legal sanction in other societies, including primitive societies. Major focus on American society.

SO641 Death and Suicide

In-depth analysis of suicide. Traditional theories of suicide are analyzed regarding the psychological approach as well as the demographic and group analysis of sociology. The goal of the course is both academic and community application.

FACULTY — 1976-1977

Arnold, Joseph J., Associate Professor, Industrial Engineering
M.S., Southern Connecticut State College

Bechir, M. Hamdy, Associate Professor, Civil Engineering
Sc.D., Massachusetts Institute of Technology

Bradshaw, Alfred, Associate Professor, Sociology
Ph.D., Syracuse University

Brown, David, Professor, Psychology
M.A., Columbia University; Licensed Consulting Psychologist

Carson, George R., Associate Professor, Civil Engineering
M.S.C.E., Columbia University, Professional Engineer, Landscape Architect

Chandra, Satish, Associate Professor, International Business
J.S.D., Yale University

Chepaitis, Joseph, Associate Professor, History
Ph.D., Georgetown University

Clifford, Frank M., Assistant Professor, Industrial Engineering
M.B.A., University of New Haven

Coleman, John R., Assistant Professor, Management Science
Ph.D., University of Massachusetts

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Ph.D., Ohio State University

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Ph.D., Columbia University

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Ph.D., Syracuse University

Ferringer, Natalie, Assistant Professor, Political Science
M.A., University of Virginia

Flaumenhaft, Frank, Assistant Professor, Management Science
M.B.A., New York University

George, Edward T., Professor, Industrial Engineering
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Gere, William S., Associate Professor, Industrial Engineering
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Greet, Richard J., Associate Professor, Materials Engineering
Ph.D., Harvard University

Grodzinsky, Stephen, Associate Professor, Electrical Engineering
Ph.D., University of Illinois

Haberman, Ronald A., Assistant Professor, Industrial Engineering
M.S.O.R., Florida Institute of Technology

Harricharan, Wilfred, Professor, Management Science
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Ph.D., The Johns Hopkins University

Karatzas, George, Associate Professor, Economics
Ph.D., New York University

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J.D., St. Louis University

Mandour, Ahmed R., Associate Professor, Economics
Ph.D., University of Oklahoma

Mann, Richard A., Professor, Mechanical Engineering
Ph.D., University of Wisconsin

Martin, John C., Professor, Civil Engineering
M.E., Yale University; Professional Engineer

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O'Keefe, Daniel C., Associate Professor, Electrical Engineering
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Smith, Warren J., Associate Professor, Management Science
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Stanley, Richard M., Associate Professor, Mathematics
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LECTURERS

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Zottola, Armand, Lecturer, Economics
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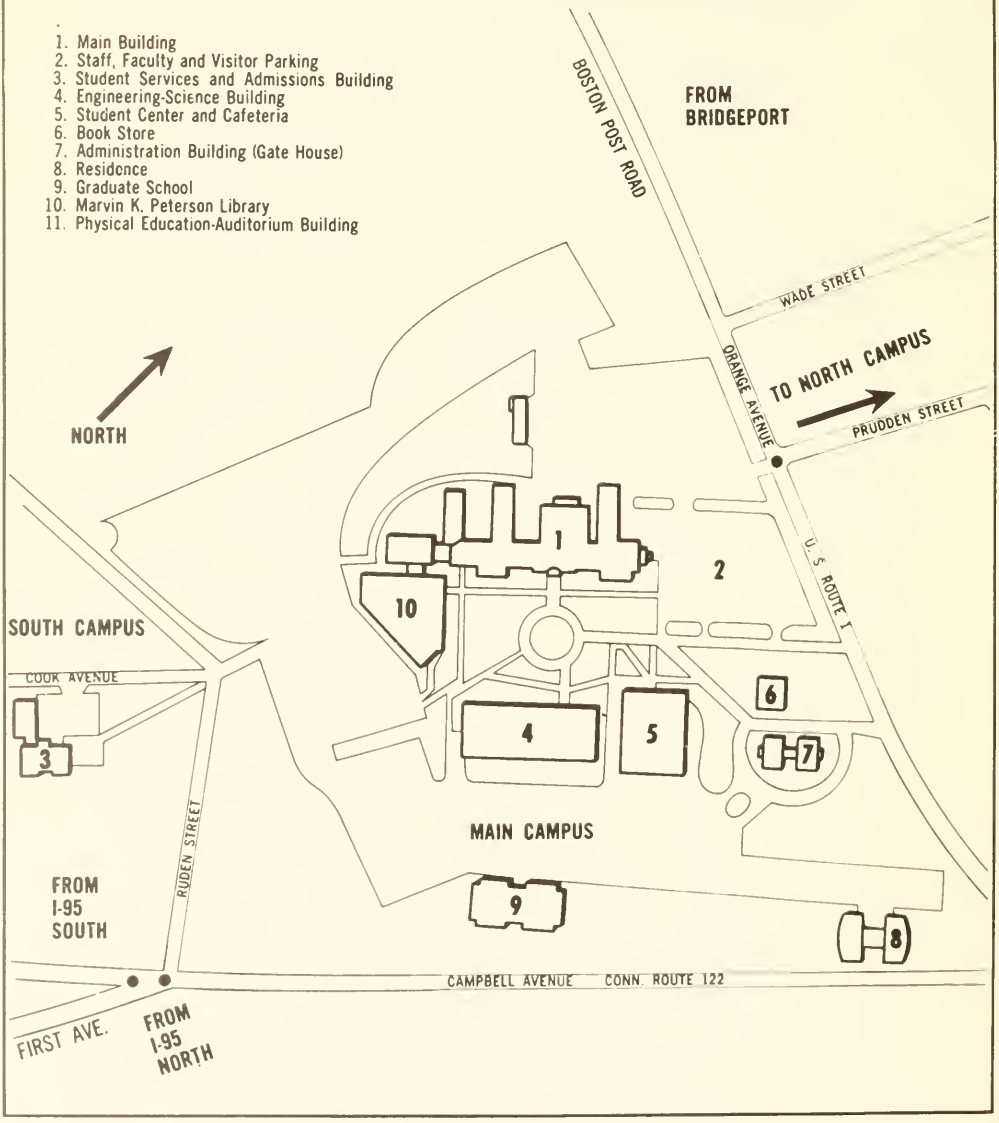
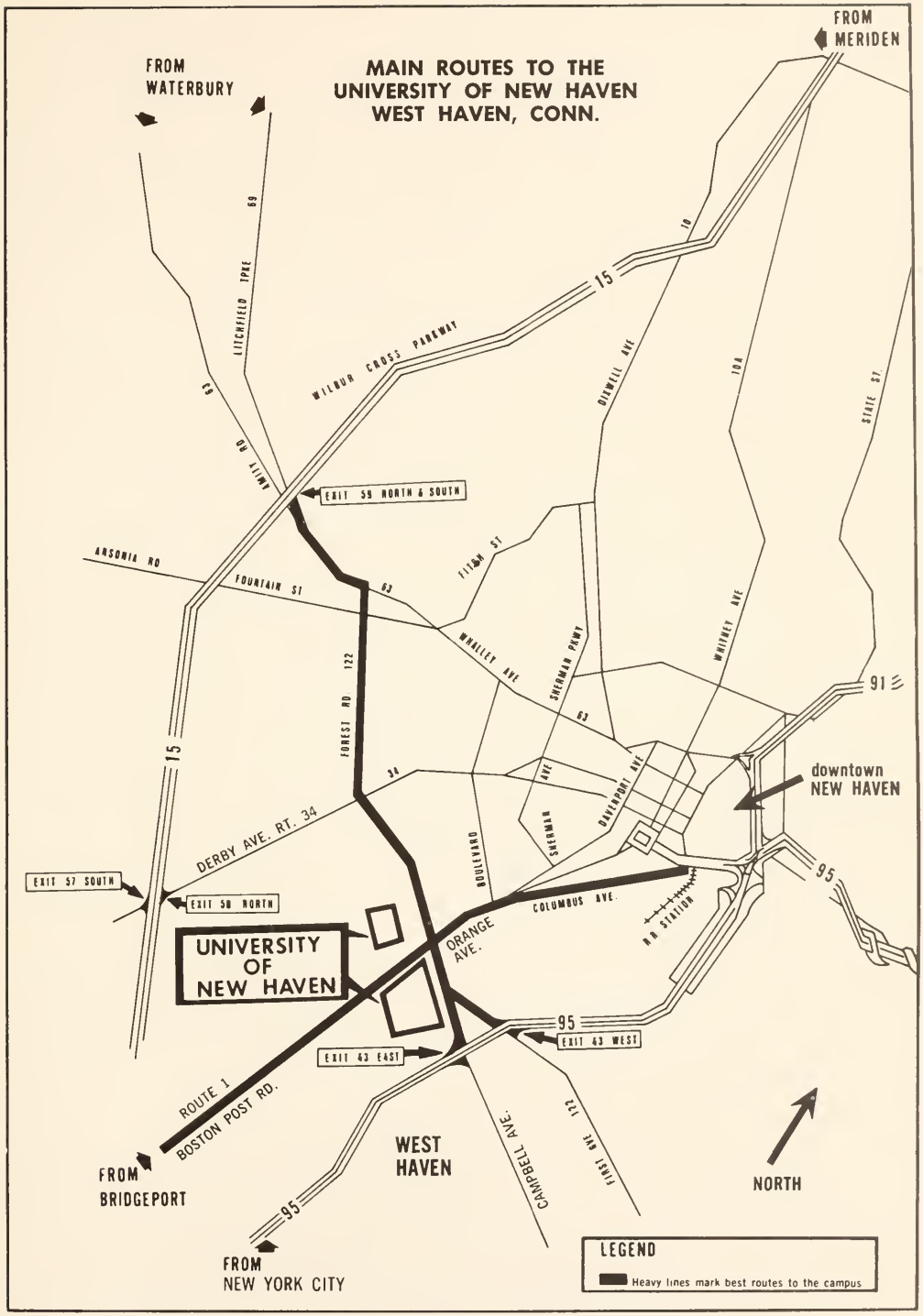
UNIVERSITY OF NEW HAVEN

1. Main Building
2. Staff, Faculty and Visitor Parking
3. Student Services and Admissions Building
4. Engineering-Science Building
5. Student Center and Cafeteria
6. Book Store
7. Administration Building (Gate House)
8. Residence
9. Graduate School
10. Marvin K. Peterson Library
11. Physical Education-Auditorium Building




MAIN ROUTES TO THE
UNIVERSITY OF NEW HAVEN
WEST HAVEN, CONN.
FROM MERIDEN
FROM WATERBURY
LITCHFIELD TPKE
69
WILBUR CROSS PARKWAY
15
10
DIXWELL AVE
104
STATE ST
63
WHITNEY AVE
91
EXIT 59 NORTH & SOUTH
ANSONIA RD
FOUNTAIN ST
FITCH ST
WALLEY AVE
SHERMAN PKWY
FOREST RD
122
34
DERBY AVE. RT. 34
downtown
NEW HAVEN
DAVENPORT AVE
BOULEVARD
EXIT 57 SOUTH
EXIT 58 NORTH
COLUMBUS AVE.
RR STATION
95
UNIVERSITY
OF
NEW HAVEN
ORANGE
AVE.
EXIT 43 EAST
EXIT 43 WEST
ROUTE 1
BOSTON POST RD.
FROM
BRIDGEPORT
WEST
HAVEN
CAMPBELL AVE.
FIRST AVE
123
NORTH
FROM
NEW YORK CITY
LEGEND
Heavy lines mark best routes to the campus